

PUBLIC REVIEW DRAFT

**LIVERMORE DRAFT GENERAL PLAN
AND DOWNTOWN SPECIFIC PLAN
ENVIRONMENTAL IMPACT REPORT**

VOLUME II: IMPACTS AND MITIGATION MEASURES



SCH No. #2003032038

LSA

June 2003

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VOLUME II: IMPACTS AND MITIGATION MEASURES

SCH No. #2003032038

Submitted to the:

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I. INTRODUCTION

A. PURPOSE OF THE EIR

In compliance with the California Environmental Quality Act (CEQA), this Draft Environmental Impact Report (EIR) describes the environmental consequences of the proposed City of Livermore Draft General Plan and the Downtown Specific Plan. This Draft Environmental Impact Report (EIR) is designed to fully inform City decision-makers, other responsible agencies, and the general public of the proposed project and the potential environmental consequences of Draft General Plan and Specific Plan approval.

The “project” analyzed in this EIR thus includes two main components:

- City of Livermore Draft General Plan; and
- City of Livermore Downtown Specific Plan.

This EIR also examines various alternatives to the proposed project, and recommends a set of mitigation measures to reduce or avoid potentially significant impacts. Four alternatives (No Development; No Project; Redistributed Alternative; and Balanced Alternative) are examined in the EIR.

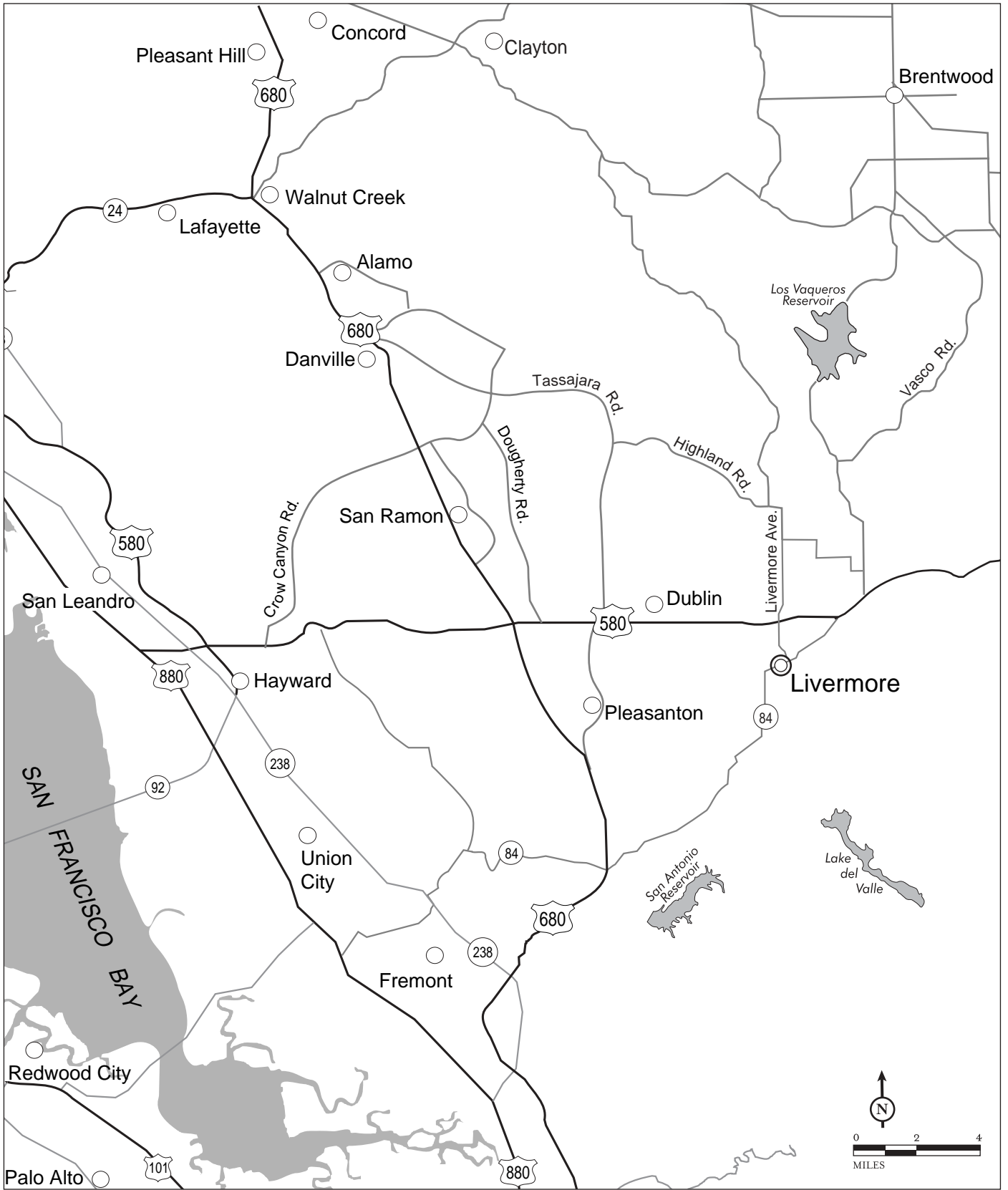
This EIR is a “Program EIR” as defined by CEQA Guidelines Section 15168. A Program EIR addresses a series of related actions that can be characterized as one large project. In this case, the Draft General Plan and the Downtown Specific Plan are related actions that together make up the project evaluated in the Program EIR. (See further discussion under subsection C, EIR Scope, below.) Figure I-1 identifies the regional location of the City of Livermore.

B. PROPOSED PROJECT

As noted above, the proposed project consists of two distinct components: 1) the City of Livermore Draft General Plan; and 2) the City of Livermore Downtown Specific Plan. While the Draft General Plan would direct land use and development patterns throughout the entire City, the Specific Plan is intended to shape land uses only in Downtown Livermore. The Specific Plan thus informs the broader land use directives of the Draft General Plan within the Downtown geographical region and would implement the General Plan as it applies to Downtown Livermore. An overview of each project component is provided below. The proposed project is described in greater detail in Chapter III, Project Description.

1. City of Livermore Draft General Plan

The Draft General Plan, which is the City of Livermore’s fundamental land use and development policy document, is intended to guide development throughout the entire City. In addition, the Draft General Plan influences development in an area known as the Planning Area, which extends up to 4 miles beyond the boundaries of Livermore. The Draft General Plan, along with the Downtown



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FIGURE I-1

*Livermore Draft General Plan and
Downtown Specific Plan EIR
Regional Location*

Specific Plan, would supersede the existing General Plan, which was adopted in 1976, and which was subject to subsequent additions and amendments. The Draft General Plan proposes changes to existing General Plan land use designations in many parts of the City. In addition, the Draft General Plan would introduce the following new land use designations: Neighborhood Mixed Use Low Density, Neighborhood Mixed Use Medium Density, Neighborhood Mixed Use High Density, and Downtown Area.

2. City of Livermore Downtown Specific Plan

The Downtown Specific Plan would be used for the systematic implementation of the Draft General Plan in Downtown Livermore, which encompasses approximately 272 acres. The Specific Plan specifies the distribution, location, and extent of land uses and infrastructure in Downtown Livermore, in addition to associated implementation measures that would carry out the Specific Plan. The plan would promote the concentration of activity-generating uses, including civic and cultural facilities; maximize new housing construction; increase pedestrian, parking, and transit access; and protect and enhance the historic integrity of Downtown.

C. EIR SCOPE

This section identifies the issues addressed and level of environmental review performed in this Program EIR.

1. Issues Addressed

The City of Livermore circulated a Notice of Preparation (NOP) that briefly described the project and the subject areas that were anticipated to be addressed in this EIR. The NOP was published on March 10, 2003, and mailed to responsible public agencies and other organizations considered likely to be interested in the potential impacts of the project. Comments on the NOP were received by the City and taken into account during the preparation of this EIR. A copy of the NOP and each comment letter received is provided in Appendix A of this EIR.

This Draft EIR focuses on the areas of concern identified in the NOP and the comments submitted on the NOP. The following environmental issues are addressed in this EIR:

- Land Use
- Population, Employment, and Housing
- Traffic and Circulation
- Utilities, Infrastructure, and Energy
- Public Services
- Cultural Resources
- Air Quality
- Noise
- Biological Resources
- Geology, Soils, and Seismicity

- Hydrology and Water Quality
- Hazards
- Visual Resources

2. Level Of Review

As noted above, this EIR is a Program EIR that addresses the Draft General Plan and Downtown Specific Plan as one large project. In accordance with CEQA Guidelines Section 15168(b), the Program EIR: 1) provides for more exhaustive consideration of effects and alternatives than would be practical in an EIR on an individual action; 2) ensures consideration of cumulative impacts that might be slighted in a case-by-case analysis; 3) avoids duplicative reconsideration of basic policy considerations; 4) allows the Lead Agency to consider broad policy alternatives and programwide mitigation measures at an early time when the agency has greater flexibility to deal with basic problems or cumulative impacts; and 5) allows reduction in paperwork.

This Program EIR identifies general effects of development that would be allowed by the Draft General Plan and Downtown Specific Plan. The degree of specificity in this EIR reflects the level of detail in the Draft General Plan and Downtown Specific Plan. Once the City of Livermore adopts the Draft General Plan and Downtown Specific Plan, subsequent development activity and other actions would be necessary to carry out the two plans. The plans themselves identify some of these actions; for example, the Draft General Plan designates areas for schools, parks, and transit-oriented mixed use development, and the Downtown Specific Plan identifies three “catalyst projects” designed to stimulate new investment in areas of the Downtown. The plans do not describe these subsequent actions in detail.

This EIR addresses the potential environmental impacts of these subsequent actions to the extent possible given the more general, “program” level of review and the level of detail provided by the Draft General Plan and Downtown Specific Plan. Specific developments, such as schools, parks, and transit-oriented mixed use designated by the Draft General Plan and “catalyst projects” identified by the Downtown Specific Plan, are incorporated into the EIR’s analysis of citywide and Downtown-wide impacts. These subsequent development projects and other actions would also be subject to additional environmental review under CEQA, once sufficient information is available to conduct project-specific analyses. This approach is consistent with CEQA Guidelines Section 15168(c), which states that “subsequent activities must be examined in the light of the Program EIR to determine whether an additional environmental document must be prepared.”

D. REPORT ORGANIZATION

This EIR is organized into the following chapters:

- *Chapter I B Introduction* provides a summary of the proposed action and environmental review process, and discusses the overall purpose, use, and organization of the EIR.
- *Chapter II B Summary* provides a summary of the impacts that would result from implementation of the proposed project, and describes mitigation measures recommended to reduce or avoid significant impacts.

- *Chapter III B Project Description* provides a description of the project site, project objectives, and project approval process, and describes the project itself.
- *Chapter IV B Setting, Impacts and Mitigation Measures* describes the following for each environmental topic: existing conditions (setting), potential environmental impacts and their level of significance, and mitigation measures recommended to mitigate identified impacts, as necessary. Potential impacts are identified by levels of significance, as follows:

SU: Significant and Unavoidable;
S: Significant; and
LTS: Less than Significant.

The significance of each impact *before* and *after* implementation of any recommended mitigation measure(s) is indicated.

- *Chapter V B Alternatives* provides an evaluation of alternative development scenarios to the proposed project and describes alternatives that have been considered but not evaluated further in this document. In addition to the CEQA-Required No Project Alternative, three alternatives are evaluated: 1) No Development alternative, 2) Redistributed alternative, and 3) Balanced alternative.
- *Chapter VI B CEQA-Required Assessment Conclusions* provides the mandatory analysis of the overall impacts of the proposed project, including growth-inducing impacts, significant irreversible changes, cumulative impacts for the environmental issues found to have significant cumulative effects, effects found not to be significant, unavoidable significant impacts, and the relationship between short-term and long-term uses of the environment.
- *Chapter VII B Report Preparation* provides a list of the reference documents, publications, and literature reviewed and cited; identifies the persons and agencies contacted during report preparation; and provides a summary of the authors and consultants involved in report preparation.

Volume I, Master Environmental Assessment, of this EIR is bound separately and contains background and setting information for each topical section addressed in Chapter IV, Setting, Impacts and Mitigation Measures of this document.

The Technical Appendices for this EIR are also bound separately.

II. SUMMARY

A. PROJECT UNDER REVIEW

This Draft EIR has been prepared to evaluate the environmental impacts of the Draft General Plan and Downtown Specific Plan (collectively known as the “proposed project”). A more detailed description of the proposed project is provided in Chapter III, Project Description.

B. SUMMARY OF IMPACTS AND MITIGATION MEASURES

This summary provides an overview of the analysis contained in Chapter IV, Setting, Impacts, and Mitigation Measures. CEQA requires a summary to include discussion of: 1) potential areas of controversy; 2) significant impacts of the project; 3) significant unavoidable impacts of the project; and 4) alternatives to the project.

1. Potential Areas Of Controversy

The potential areas of controversy surrounding the Livermore Draft General Plan and Downtown Specific Plan that were identified as part of the EIR scoping and Notice of Preparation (NOP) process and are evaluated in Chapter IV of this EIR are listed below:

- Viewsheds from I-580
- Conversion of Prime Farmland
- Vehicular pollutant emissions
- Development of wetlands, vernal pools, arroyos, and other sensitive biological resources
- Impacts to Native American archaeological sites
- Preservation of historic buildings
- Groundwater recharge
- Urban Growth Boundary (UGB)
- Aggregate resources
- Traffic-related noise levels
- Airport-related noise
- Affordable housing
- Jobs/housing balance
- Population growth
- Emergency response
- Provision of parks and open space preservation

- Regional and local traffic congestion
- Wastewater treatment and disposal
- Water usage

2. Significant Impacts And Significant Unavoidable Impacts

Under CEQA, a significant impact on the environment is defined as: a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance.¹

Implementation of the proposed project has the potential to result in adverse environmental impacts in several areas. Public services-related impacts are significant but would be reduced to a less-than-significant level through implementation of the mitigation measure recommended in this EIR. As discussed in Chapter IV of this EIR, the proposed project would result in significant unavoidable impacts in the following topical areas: traffic and circulation; air quality; and noise.

3. Alternatives to the Project

The four alternatives to the proposed project that are analyzed in this Draft EIR are:

- The **No Development alternative**, which assumes that no future development would occur within Livermore, and that existing conditions would remain.
- The CEQA-required **No Project alternative**, which assumes that the proposed project would not be adopted or implemented and that development would continue in accordance with the Community General Plan 1976-2000.
- The **Redistributed alternative**, which assumes that more housing would be built throughout Livermore, especially in outlying areas of the City.
- The **Balanced alternative**, which assumes that providing a balance between jobs and housing would be the primary focus of the Draft General Plan and the Downtown Specific Plan.

C. SUMMARY TABLE

Information in Table II-1, Summary of Impacts and Mitigation Measures, has been organized to correspond with the environmental issues discussed in Chapter IV. The table is arranged in four columns: 1) impacts; 2) level of significance prior to mitigation measures; 3) mitigation measures; and 4) level of significance after mitigation. Levels of significance are categorized as follows: SU = Significant and Unavoidable; S = Significant; and LTS = Less Than Significant. For a complete description of potential impacts and recommended mitigation measures, please refer to the specific discussions in Chapter IV.

¹ CEQA Sections 21060.5 and 21068.

Table II-1: Summary of Impacts and Mitigation Measures

Environmental Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
A. LAND USE			
<i>There are no significant impacts for land use.</i>			
B. POPULATION, EMPLOYMENT, AND HOUSING			
<i>There are no significant impacts for population, employment and housing.</i>			
C. TRAFFIC AND CIRCULATION			
<p><u>TRAF-GP-1</u>: Relative to existing conditions, growth associated with implementation of the Draft General Plan would produce significant impacts at seven intersections in the Downtown area by the year 2025.</p>	S	<p><u>TRAF-GP-1</u>: The City shall require on-going development review of circulation system impacts, mitigation of those impacts to the greatest extent feasible, traffic signal coordination, driveway/access control, preservation of right-of-way for future improvements and construction of missing roadway links to relieve congestion at impacted locations. While those policies and actions will result in many intersections meeting the City’s LOS standards, they will not reduce the impact at the above listed locations to a less-than-significant level.</p>	SU
<p><u>TRAF-GP-2</u>: Relative to 2003 conditions, implementation of the Draft General Plan would result in significant impacts at nine intersections at or near I-580 by the year 2025.</p>	S	<p><u>TRAF-GP-2</u>: The City shall continue on-going development review of circulation system impacts from individual projects, mitigation of those impacts to the greatest extent feasible, traffic signal coordination, driveway/access control, preservation of right-of-way for future improvements and construction of missing roadway links to relieve congestion at impacted locations. However, the impacts at the nine intersections near I-580 cannot be reduced to a less-than-significant level.</p>	SU
<p><u>TRAF-GP-3</u>: Relative to 2003 conditions, implementation of the Draft General Plan would produce significant impacts at four intersections (outside of the Downtown area and not at or near I-580 ramps) by year 2025.</p>	S	<p><u>TRAF-GP-3</u>: The City shall continue on-going development review of circulation system impacts from individual projects, mitigation of those impacts to the greatest extent feasible, traffic signal coordination, driveway/access control, preservation of right-of-way for future improvements and construction of missing roadway links to relieve congestion at impacted locations. However, the impacts at the four intersections cannot be reduced to a less-than-significant level.</p>	SU
<p><u>TRAF-GP-4</u>: Relative to 2003 conditions, implementation of the Draft General Plan would produce significant impacts at 15 roadway segment locations.</p>	S	<p><u>TRAF-GP-4</u>: The City shall require on-going project development review of circulation system impacts, mitigation of those impacts to the greatest extent feasible, traffic signal coordination, driveway/access control, preservation of right-of-way for future improvements and construction of missing roadway links to relieve congestion at impacted locations. However, the impacts at the 15 roadway segments cannot be reduced to a less-than-significant level.</p>	SU

Environmental Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
<u>TRAF-GP-5</u> : Based on traffic forecasts from the Countywide Model, in year 2025 there are five roadway and I-580 segment locations which are projected to be significantly impacted based on CMA standards.	S	<u>TRAF-GP-5</u> : At this time, no sufficient mitigation measures are available to reduce this impact to a less-than-significant level.	SU
D. UTILITIES, INFRASTRUCTURE, AND ENERGY			
<u>INF-GP-1</u> : The extent of new growth and development as proposed in the Draft General Plan and Downtown Specific Plan would exceed the City of Livermore's wastewater disposal capacity.	S	<u>INF-GP-1</u> : No additional mitigation measures are available to reduce this impact to a less-than-significant level. This impact is considered significant and unavoidable.	SU
E. PUBLIC SERVICES			
<u>PUB-SP-1</u> : Implementation of the Downtown Specific Plan would result in population growth that would be under-served by park space.	S	<u>PUB-SP-1</u> : The City shall work with private developers and the LARPD to develop a neighborhood park in or adjacent to the Downtown plan area that would serve the existing and future residents living Downtown.	LTS
F. CULTURAL RESOURCES			
<i>There are no significant impacts to cultural resources.</i>			
G. AIR QUALITY			
<u>AQ-1</u> : The Draft General Plan and Downtown Specific Plan would allow employment and population growth that would generate additional air emissions from vehicular travel.	S	<u>AQ-1</u> : No mitigation measures are available to reduce this impact to a less-than-significant level.	SU
<u>AQ-2</u> : The Draft General Plan and Downtown Specific Plan would allow employment and population growth that would contribute to a cumulative air quality impact.	S	<u>AQ-2</u> : No mitigation measures are available to reduce this impact to a less-than-significant level.	SU
H. NOISE			
<u>NOISE-GP-1</u> : Implementation of the Draft General Plan and Downtown Specific Plan would increase traffic noise levels along some road segments by over 4 dBA, potentially exposing residences and other land uses to excessive noise.	S	<u>NOISE-GP-1</u> : No mitigation measures are available to reduce this impact to a less-than-significant level.	SU

Environmental Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
<p>NOISE-GP-2: The Draft General Plan would provide for an increase in flights at the Livermore Municipal Airport, exposing a larger area of the City, including existing housing, to aircraft noise.</p>	<p>S</p>	<p>NOISE-GP-2: The City of Livermore shall develop a program to identify residences subject to excessive Airport noise. The program shall ensure that the State's 45 dBA CNEL/L_{dn} interior noise standard for residential uses is achieved for these affected residences. One way of implementing this measure would be for the City to contract with a qualified acoustical engineer to conduct annual exterior noise measurements, beginning along the block nearest the eastern edge of the Airport and, over the years, moving eastward, away from the Airport. If/when the exterior noise levels are within one dBA of 60 dBA CNEL on any block, the City should purchase and install of air conditioning units for those single family residences exposed to such noise. The air conditioning units would allow these residences the option of keeping their windows closed during the summer months when it would otherwise be too hot to do so.</p>	<p>LTS</p>
<p>I. BIOLOGICAL RESOURCES</p>			
<p><i>There are no significant impacts to biological resources.</i></p>			
<p>J. GEOLOGY, SOILS, AND SEISMICITY</p>			
<p><i>There are no significant impacts to geology, soils, and seismicity.</i></p>			
<p>L. HAZARDS</p>			
<p><i>There are no significant impacts to hazards.</i></p>			
<p>M. VISUAL RESOURCES</p>			
<p><i>There are no significant impacts to visual resources.</i></p>			

III. PROJECT DESCRIPTION

A. INTRODUCTION

The project analyzed in this Draft EIR contains two main components:

- *Livermore General Plan Update.* The City of Livermore has prepared a 2003 Draft General Plan for the City and its environs to update and supersede the existing General Plan, adopted in 1976 and which was subject to subsequent additions and amendments. As the City's fundamental land use and development policy document, the General Plan shows how the City will grow, foster and conserve its resources. The purpose of the Draft General Plan is to guide development and conservation of resources in the City through 2025.
- *City of Livermore Downtown Specific Plan.* The City has also prepared a Downtown Specific Plan for approximately 272 acres located near the geographic center of the City of Livermore. The Downtown Specific Plan is both a policy document and an implementation tool for the Draft General Plan; it contains strategies for change and regulatory policies to guide and govern future development within the Downtown. The Specific Plan details proposed land uses and their distribution, proposed infrastructure improvements, development standards, and design guidelines and standards intended to amend existing City policies and change zoning code standards. The Specific Plan also includes standards for circulation, parking, and utilities needed for development. Revisions to the Livermore Planning and Zoning Code and Municipal Code may be needed to facilitate development and address land use compatibility issues. Other approvals, including rezoning, would also be necessary to implement the Specific Plan after the Plan is adopted.

In this EIR chapter, the Draft General Plan and the Specific Plan are described separately. The impacts of the two Plans are also described separately in the chapter that follows (Chapter IV, Setting, Impacts and Mitigation Measures). This separation in the project description and environmental analysis will allow the public, City decision-makers, and regulatory agencies to clearly understand the environmental effects that are specific to each of the two Plans.

This project description chapter provides an overview of the project's regional location and general setting, a detailed description of the proposed Draft General Plan and Downtown Specific Plan, a brief discussion on the anticipated adoption and implementation of the Plans, and an explanation of the intended uses of this Program EIR.

B. REGIONAL LOCATION AND GENERAL SETTING

The City of Livermore occupies approximately 24 square miles in the Livermore Valley, in eastern Alameda County, approximately 43 miles east of San Francisco. As shown in Figure I-1, Livermore is located in the Tri-Valley area, a geographic and economic sub-region of the Bay Area that includes the cities of Pleasanton (directly west of Livermore), Dublin (to the northwest), and San Ramon. The Tri-Valley is bounded on the west by the Las Trampas/Pleasanton/Sunol ridge system, and on the east

by the foothills of Mount Diablo. Unincorporated areas of Alameda County lie to the north, east, and south of the City limits. Several creeks and arroyos cross the City; portions of these creeks support vegetation and trees.

Livermore is bisected by Interstate 580 (I-580) which runs east-west through Alameda County and provides regional access to the inner San Francisco Bay cities to the west and to San Joaquin County communities to the east. Other regional access routes include State Route 84 (SR 84) along First Street. Other major regional connectors include Stanley Boulevard from the west, North Livermore Avenue and Vasco Road from the north, and Tesla Road, Mines Road, and South Livermore Avenue from the south and east. The Livermore Amador Valley Transit Authority (LAVTA) directs WHEELS, an inter-city bus system. Livermore has seven bus routes, three of which go to the Dublin/Pleasanton BART station, currently BART's furthest station east along the I-580 corridor. The Altamont Commuter Express (ACE), a regional rail line between Stockton and San Jose, runs on the Union Pacific rail lines and has two stops in Livermore, on Vasco Road and Downtown. The Livermore Municipal Airport is located in the western portion of the City just south of I-580.

The area within the Livermore City limits is mostly built out, with limited land available for development. Livermore's Downtown lies exactly at the geographic center of the City, about 1.5 miles from I-580. Historically, the City's founders set up the commercial core near the railroad line and at the intersection of SH 84 (First Street) and Livermore Avenue, a major north-south route through the City. The residential neighborhoods of the City are generally developed at suburban densities. Industrial and commercial areas exist in the eastern and western areas of the City, and the Lawrence Livermore National Labs and Sandia Labs are located in the southeastern portions of the City.

As of January 1, 2003, the City of Livermore's population (within the city limits) was estimated at 76,700 people, representing about 5 percent of Alameda County's estimated population of 1,433,300 people. The City contained an estimated 28,300 housing units and 41,500 jobs.

C. DRAFT GENERAL PLAN

A detailed description of the proposed Draft General Plan is presented below, and an overview of California law as it governs General Plans is provided. The remainder of the section provides a description of the planning process, a summary of the General Plan Elements goals and objectives, and housing, population and job projections as they are analyzed in this EIR. The Draft General Plan is hereby incorporated by reference into this Project Description, and should be referred to for a more detailed description.

1. Relationship to California State Law

California Government Code Section 65300 requires that the General Plan be comprehensive, internally consistent and long-term. The General Plan must provide for the physical development of the City and guide all land use and public improvement decisions. All general plans must include land use, transportation, housing, open space, conservation, noise, and safety elements, and may also include optional elements in response to specific community issues, values, needs, or local conditions. Although required to address the issues specified in State law, the General Plan may be organized in a way that best suits the City.

The Draft General Plan meets these requirements while also containing goals, objectives, and policies aimed at achieving the City's vision for its long-term physical form and development. The Draft General Plan would serve as a basis for future decision-making by municipal officials, including City staff, the Planning Commission, and the City Council. When adopted, the Draft General Plan would supersede the previous General Plan, adopted in 1976. The Draft General Plan contains actions requiring the updating of other City planning and implementation documents and programs so that they can be adjusted to development projections contained in the Draft General Plan. The South Livermore Valley Specific Plan is incorporated as part of the Draft General Plan.

The State encourages cities to look beyond their borders when undertaking comprehensive planning. For this reason, the Draft General Plan assesses an area known as the Planning Area, which is larger than the City limits. The Planning Area encompasses land in Alameda County surrounding the City and extends up to 4 miles beyond the City limit to the north and south. The Planning Area is shown on Figure III-1. While the City does not have any regulatory or land use power over lands within the County jurisdiction, by considering and designating land uses on lands in the Planning Area, the City shows that it recognizes that development within this area affects the future of Livermore. Under State law, the City is invited to comment on development within the Planning Area that is subject to review by the County. However, the unincorporated portion of the Livermore Planning Area will remain under the jurisdiction of Alameda County, unless annexed to the City.

In addition to its City limits and Planning Area, every city in California has a Sphere of Influence, which is the term used for the area outside the City limits but within which the city would consider requests for annexation in future years. Livermore's Sphere of Influence lies within the Planning Area; it is coterminous with the City limits on the west and northwest edges of the City and extends up to a mile beyond the City limits to the northeast, east, and south. The Sphere of Influence is shown on Figure III-1. The Urban Growth Boundary (UGB) that surrounds the City and is generally coterminous with the City limits is also shown on Figure III-1.

2. The Draft General Plan Update Process

The Draft General Plan was prepared over a period of a year by City staff and a consultant team under the direction of a 15-member Steering Committee appointed by the City Council in 2002. The Steering Committee held a total of 12 meetings and one workshop to prepare the Draft General Plan.

The Steering Committee process began in July 2002 with the preparation of a series of reports on existing conditions in Livermore and the Planning Area detailing Land Use, Community Character, Environmental Conditions, Traffic, Infrastructure, and Economic Conditions. These reports were combined and included in the Master Environmental Assessment (MEA) (Volume I of this EIR), which also describes the existing environmental setting for the topics analyzed in this EIR. To prepare these studies, the consultant team conducted field observations, interviews, and database and archival research. Planning documents, government laws and regulations, and City codes and ordinances were also reviewed. An overview of the existing General Plan was also prepared.

The Steering Committee held two meetings to review and discuss the issues presented in the existing conditions reports. Based on their knowledge of Livermore and its planning issues, Committee members generated a list of topics that they determined were significant and merited particular attention during policy development. Once a list of key issues was identified, City staff and consultants presented policy options for each issue to be included in the General Plan. The policy

options were discussed at Steering Committee meetings held from September to December, 2002. In meetings held in October and December 2002, and January 2003, the Steering Committee considered potential land use alternatives, ultimately recommending a Preferred Land Use Plan alternative on January 30, 2003. On February 25, 2003, the City Council amended and approved the Preferred Land Use Plan for consideration as the General Plan Update. Based on the policy direction provided by the Steering Committee and the Preferred Land Use Plan, staff and consultants drafted the Draft General Plan.

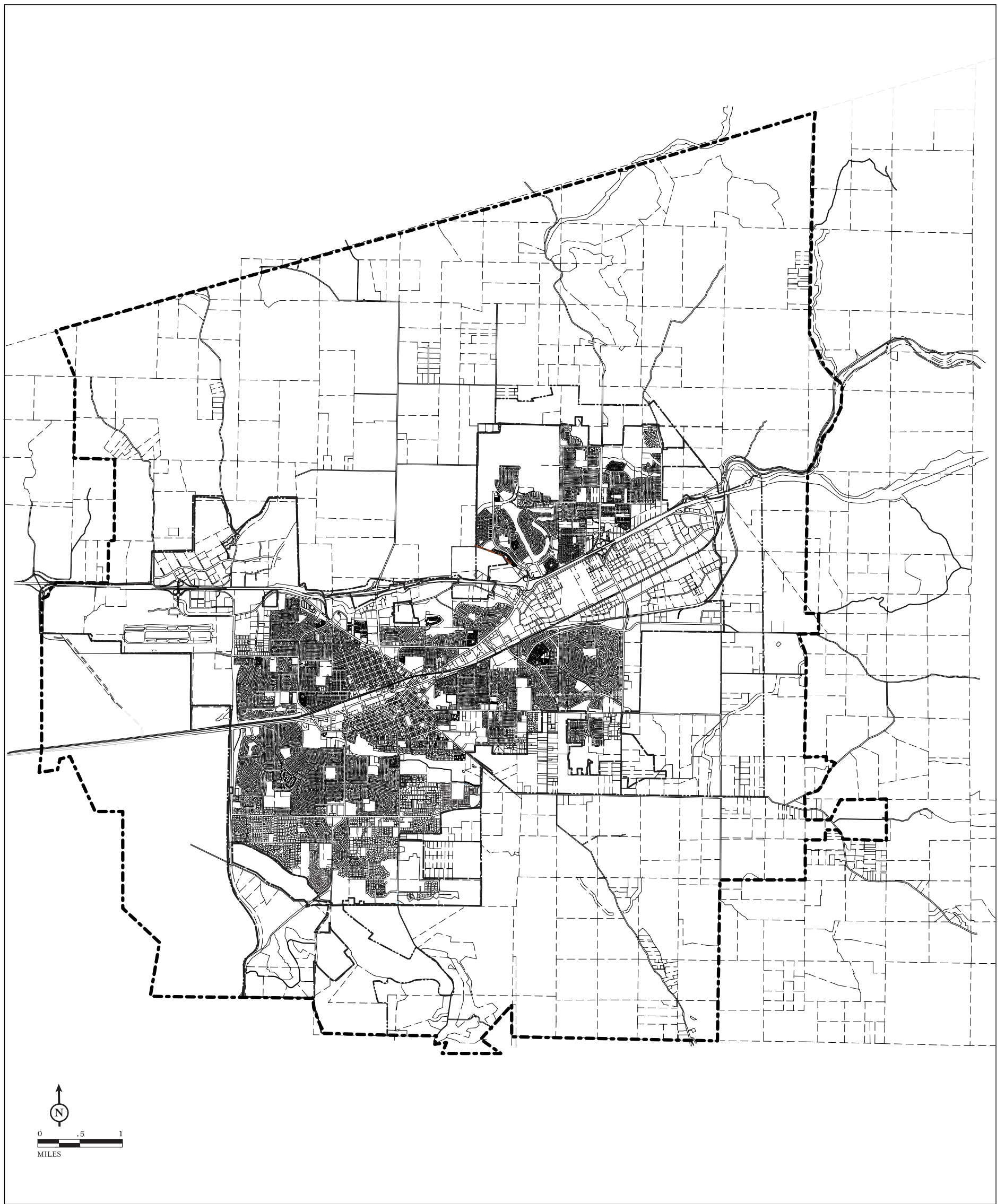
3. Draft General Plan Elements

The Draft General Plan includes nine separate “elements” (or chapters) that set goals, objectives, policies and actions for a given subject. Six of these elements—Land Use, Circulation, Open Space and Conservation, Noise, Public Safety, and Housing—cover the seven topics required by Government Code Section 65302. The remaining three elements—Infrastructure and Public Services, Economic Development and Fiscal, and Community Character—have been prepared by the City to meet local needs and concerns. The Housing Element, which is anticipated to be adopted in the Summer of 2003, is a stand-alone document and is not included in the Draft General Plan. Government Code Section 65588 requires Housing Elements to be updated every five years and to include specific components such as analysis of the existing housing stock, analysis of existing and projected housing needs, and quantification of the number of housing units that will be developed, preserved, and improved through the policies and actions. As of June 2003, the draft Housing Element update is nearly complete, and a separate CEQA review will be conducted for the Housing Element in 2003.

Each element provides goals, objectives, policies, and actions to address key city issues. Some of these goals, objectives, policies and actions are related to the review of new development; others are directed to the City’s own activities. In the Draft General Plan, a “goal” is a description of the general desired result that the City seeks to create through the implementation of its General Plan. An “objective” is a specific condition or end that serves as a concrete step toward attaining a goal. Objectives are intended to be clearly achievable and, when possible, measurable. A “policy” is a specific statement that guides decision-making when working toward achieving an objective. Such policies, once adopted, represent statements of City regulation and require no further implementation. An “action” is a program, implementation measure, procedure, or technique intended to help to achieve a specified objective. The goals, objectives, policies, and actions in each element are based on background information, key findings, the previous 1976 General Plan, input from the Steering Committee, State law, and the technical expertise of the consultant team. (Appendix B of this EIR contains a compendium of all Draft General Plan policies for reference.)

The following sections summarize the main points of each Draft General Plan element.

a. **Land Use Element.** The Land Use Element designates all lands within the City for a specific use such as housing, business, industry, open space, recreation, or institutional use. The Land Use Element establishes policies and actions for the use and development of land and provides development regulations for each land use category. The Land Use Designations map (shown as Figure IV.A-1 in Section IV.A, Land Use, of this EIR) shows the general distribution of planned land uses throughout the City based upon the policies of the Draft General Plan. Development limits and the range of uses established by the Land Use Map may be modified by the Livermore Planning and Zoning Code, which determines specific regulations governing the development of property.



LSA

FIGURE III-1

*Livermore Draft General Plan and
Downtown Specific Plan EIR
Planning Area*

- PLANNING AREA BOUNDARY
- CITY LIMIT LINE
- · - · - · SPHERE OF INFLUENCE
- URBAN GROWTH BOUNDARY

(1) **New Land Use Designations and Policy Changes.** The Land Use Element identifies land use designations for the entire City based upon the policies of the Draft General Plan. The land use designations generally relate to the designations shown on the Land Use Map in the 1976 General Plan. However, in some cases the categories have been refined, and four new designations related to mixed-use also have been included in the Draft General Plan. The intent of the new Neighborhood Mixed Use designations is to improve pedestrian orientation in neighborhoods by providing commercial services within walking distance of residents and integrating housing with commercial uses on these sites. Sites designated Neighborhood Mixed Use must provide commercial and residential uses at a minimum floor area of 25 percent each. The intent of the Downtown Area Mixed Use designation is to provide a unique, locally-oriented, pedestrian-friendly shopping environment with higher-intensity residential development to support the predominantly commercial environment. The four new Mixed Use designations are:

- **Downtown Area (DA):** This general designation applies to the area traditionally known as Downtown Livermore. Higher-intensity residential development of a density that will support the predominantly commercial environment is integral to the economic viability of this district. This area encompasses approximately 272 acres and supports a variety of mixed uses, including commercial, office, entertainment, cultural arts, lodging, and residential. Maximum development potential in the DA, by land use, is as follows: Commercial – approximately 320,000 square feet; Office – approximately 40,000 square feet; Entertainment – approximately 2,000 performance art seats and up to six movie theater screens; Lodging – approximately 150 rooms; and Residential – approximately 3,600 units.
- **Neighborhood Mixed Use Low Density:** This designation would apply to two areas designated Neighborhood Commercial by the 1976 General Plan. It allows for a 0.30 FAR for the commercial portion and 12-15 dwelling units per acre for the residential portion.
- **Neighborhood Mixed Use Medium Density:** This designation would apply to an area designated Low Intensity Industrial by the 1976 General Plan. It allows for a 0.30 FAR for the commercial portion and 15-24 dwelling units per acre for the residential portion.
- **Neighborhood Mixed Use High Density:** This designation would apply to areas surrounding the proposed BART station where transit-oriented development is envisioned in the future. It allows for a 0.30 FAR for the commercial portion and 24-38 dwelling units per acre for the residential portion.

The text below a major policy difference, related to residential growth rates between the 1976 and 2003 General Plans.

(2) **Residential Growth Rate.** Livermore has had a residential growth rate policy in place since 1976. The residential growth rate was initially set at two percent per year on a first-come, first-served basis for developers. By 1979, this strategy evolved into the first Residential Development Policy (RDP) for the City, which required an extensive project review process in order to establish priority for individual development projects. In 1988, the RDP was replaced by the first Three-Year Housing Implementation Program (HIP), which permits a growth rate of between 1.5 percent and 3.5 percent annually for a three-year period. The HIP permits the City to target specific types of housing and growth management objectives in each three-year HIP period. In the Draft General Plan, the growth rate has been changed to a numerical range of 140 to 700 units per year.

(3) Land Use Goals and Objectives. The goals and objectives of the Land Use Element are identified below. Please note that Draft General Plan goals, objectives, policies and action language associated with the *North Livermore Urban Growth Boundary Initiative* (adopted by the City Council in December 2002) and the *South Livermore Urban Growth Boundary Initiative* (passed by the voters in March 2000) are identified in italics. Initiative language is distinguished by italics because the provisions of either initiative cannot be amended or repealed, unless approved by a majority of the Livermore electorate prior to amendment/alteration of the policy.

Goal LU-1 Protect the unique qualities of Livermore, which include a historic Downtown, a variety of residential neighborhoods, vineyards, ranches, natural habitats and open space.

Objective LU-1.1 Locate new development so as to create a consolidated pattern of urbanization, maximizing the use of existing public services and facilities.

Objective LU-1.2 Create neighborhoods that include a mix of uses and a range of housing types to meet the needs of all residents.

Objective LU-1.3 Utilize the transferring of density in order to preserve environmentally and aesthetically sensitive areas.

Objective LU-1.4 Encourage commercial development that will support and enhance a vibrant Downtown and serve existing neighborhoods.

Objective LU-1.5 Protect the City's investments in public property and preserve public lands for the use of the whole community.

Goal LU-2 *The City recognizes that it has an overriding responsibility to promulgate policies and programs which will result in the management of growth to best serve the health, safety, and general welfare of its residents (NLUGBI).*

Objective LU-2.1 Develop and phase new housing at a rate that can be absorbed by public infrastructure and in a manner that fits within Livermore's character.

Goal LU-3 Provide areas for high-density mixed-use development near transit.

Objective LU-3.1 Create neighborhoods near transit that include a mix of uses and a range of housing types to meet the needs of all residents.

Goal LU-4 Ensure that new development mitigates significant environmental, design, and infrastructure impacts.

Objective LU-4.1 Prevent development from occurring where the location or the physical or biological characteristics of the site would make the land use inappropriate.

Objective LU-4.2 Ensure that new development complements its local context and minimizes impacts on the environment.

Objective LU-4.3 Designate appropriate areas for industrial uses in order to prevent negative impacts on the health, safety, and welfare of residents.

Objective LU-4.4 Protect the Municipal Airport from encroachment by incompatible uses.

Goal LU-5 *It is the goal of the City to establish a coherent and logical pattern of urban uses that protects and enhances open space and agricultural uses by providing a clear and permanent boundary for urban uses within the City's Planning Area. The provisions of GOAL LU-5, as readopted by the North Livermore Urban Growth Boundary Initiative shall be amended only by a vote of the people.*

Objective LU-5.1 Maintain an Urban Growth Boundary to protect open space and agricultural uses in North Livermore.

Objective LU-5.2 Carefully regulate land uses in North Livermore.

Objective LU-5.3 Encourage clustered development that does not detract from the rural character of North Livermore.

Objective LU-5.4 Establish maximum floor areas for North Livermore.

Goal LU-6 **Ensure that development minimizes potential visual impacts.**

Objective LU-6.1 Encourage development that does not detract from the scenic character of North Livermore.

Goal LU-7 **Ensure that alterations to existing topography are minimized.**

Objective LU-7.1 To allow development that does not create impacts to the existing topography in North Livermore.

Goal LU-8 **Encourage the use of easements to limit development to allowed uses.**

Objective LU-8.1 To develop easements as a mechanism for ensuring that development is limited to allowed uses.

Goal LU-9 **Establish a Transferable Development Credits Program.**

Objective LU-9.1 To create a mechanism for transferring development credit from North Livermore to other areas of the City.

Goal LU-10 **Encourage the orderly subdivision of land.**

Objective LU-10.1 Carefully regulate the subdivision of land outside the Urban Growth Boundary.

Goal LU-11 Provide adequate housing within the Urban Growth Boundary.

Objective LU-11.1 Strive to provide all future housing within the Urban Growth Boundary.

Goal LU-12 Ensure that the North Livermore Urban Growth Boundary Initiative is effectively applied and in compliance with the law.

Objective LU-12.1 Protect the legal rights of individuals when implementing the North Livermore Urban Growth Boundary Initiative.

Objective LU-12.2 Apply the Initiative to parcels, development and uses subject to City authorizations and approval.

Objective LU-12.3 Avoid inconsistency with City Plans, Ordinances and Actions.

Objective LU-12.4 Implement and enforce the provisions of the North Livermore Urban Growth Boundary Initiative.

Goal LU-13 Promote the South Livermore Valley as a unique and historic wine region.

Objective LU-13.1 Develop additional wineries with a range of sizes, and other wine-country uses that promote the area as a premier wine-producing area.

Goal LU-14 Take a proactive approach to protect, enhance, and increase viticulture and other cultivated agriculture.

Objective LU-14.1 *Expand cultivated agricultural, particularly viticultural, use in the South Livermore Valley from the 1993 total of 2,100 acres to the maximum acreage possible, under the Alameda County East County Area Plan (NLUGBI).*

Goal LU-15 Preserve South Livermore's unique rural and scenic qualities.

Objective LU-15.1 Maintain a land trust to permanently protect productive and potentially productive cultivated agricultural lands in the South Livermore Valley.

Goal LU-16 Discourage and minimize development on lands with existing vineyards and on lands suitable for viticulture.

Objective LU-16.1 Limit further urbanization within the South Livermore Valley in areas under City jurisdiction to development that substantially enhances cultivated agriculture.

Goal LU-17 Coordinate land use planning of the area between Alameda County and the cities of Livermore and Pleasanton so as to increase certainty over future land uses and to reduce speculation.

Objective LU-17.1 Maintain the permanent South Livermore Growth Boundary and open space buffer between the cities of Pleasanton and Livermore in the South Livermore Valley.

Goal LU-18 *It is the goal of the City to establish a coherent and logical pattern of urban uses that protects and enhances open space and agricultural uses by providing a clear and permanent boundary for urban uses within the City's planning area. The provisions of GOAL LU-18, as readopted by the South Livermore Urban Growth Boundary Initiative, shall be amended only by a vote of the people.*

Objective LU-18.1 *Maintain a permanent Urban Growth Boundary (UGB) on the City's southern edge (as indicated Figure LU 3-5) beyond which urban development shall not be permitted. Non-urban uses, such as agriculture, parks, and open space may be permitted within and beyond the South Livermore UGB.*

Goal LU-19 Establish and maintain urban development criteria for the South Livermore Valley.

Objective LU-19.1 Require any urban development proposal within the South Livermore Valley to meet criteria intended to promote agriculture and discourage irresponsible development.

Objective LU-19.2 Designate appropriate City areas within the South Livermore Valley as "Transitional Areas" due to physical isolation from the main part of the South Livermore planning area, adjacency and relationship to existing urbanized areas, and/or locations within the existing City.

Goal LU-20 Maintain the rural qualities of the unincorporated part of the Livermore Planning Area.

Objective LU-20.1 Preserve agricultural and natural resources in the unincorporated area to provide the natural setting for Livermore's identity.

b. Community Character Element. The Community Character Element is an optional element not required by State law. However, due to the importance of Livermore's unique physical and visual resources, the community has decided to include a Community Character Element to identify, protect and enhance these features. The Community Character Element provides information on visual and urban design resources, natural setting, and cultural resources, and contains goals, objectives, policies, and actions to guide private individuals and government in preserving and enhancing Livermore's physical identity.

The goals and objectives of the Community Character Element include the following:

Goal CC-1 Preserve and enhance Livermore's natural setting.

Objective CC-1.1 Use open space to protect and enhance local community character and identity, to preserve rural characteristics, and to provide an edge to urban growth.

Objective CC-1.2 The intensity of land use in woodland areas shall reflect the density of the trees so as to perpetuate the woodland character.

Objective CC-1.3 Minimize obtrusive glare and wasted energy from excessive nighttime lighting and preserve views of the nighttime sky.

Goal CC-2 Maintain high standards of urban design in Livermore.

Objective CC-2.1 Maintain and enhance Livermore's urban design quality and encourage high quality design in all new development and redevelopment.

Objective CC-2.2 Maintain high-quality design of all signage.

Objective CC-2.3 Maintain high-quality design of public facilities.

Objective CC-2.4 Preserve and enhance all entry corridors to Livermore.

Goal CC-3 Preserve and enhance the City's cultural and historic resources not merely as positive reminders of the past, but also as relevant and unique alternatives for the present and the future – a source of community identity, architecture, and social, ecological and economic vitality.

Objective CC-3.1 Establish and maintain a comprehensive, Citywide preservation program.

Objective CC-3.2 Establish an inventory of historic and cultural resources of significance to the local community, the State and the Nation.

Objective CC-3.3 Promote a broad public understanding of Livermore's heritage, traditions, and preservation policies and foster a wider appreciation of the contributions historic and cultural resources make to the City's distinctive and diverse character.

Objective CC-3.4 Identify and protect archaeological and paleontological resources that enrich our understanding of early Livermore and the surrounding region.

Objective CC-3.5 Provide incentives to encourage owners of historic resources to preserve and rehabilitate their properties.

Goal CC-4 Protect and enhance public views within and from established scenic routes, including views of arroyos.

Objective CC-4.1 Protect public views from scenic routes and corridors.

Objective CC-4.2 Provide a continuous, convenient system of scenic routes.

Objective CC-4.3 Establish efficient and attractive connecting links.

- Objective CC-4.4 Provide a variety of scenic routes.
- Objective CC-4.5 Control access to scenic routes.
- Objective CC-4.6 Use landscaping to increase the scenic qualities of scenic routes.
- Objective CC-4.7 Minimize the presence of transmission towers and lines within scenic routes.
- Objective CC-4.8 Establish architectural and site design review for projects within scenic routes.
- Objective CC-4.9 Protect scenic routes from extensive or unnecessary grading.
- Objective CC-4.10 Apply the following criteria in the review of building and grading permits in developable areas. (CC-4.10.P1-P3)
- Objective CC-4.11 Designate responsibilities for scenic routes.
- Objective CC-4.12 Provide for normal uses of land and protect against unsightly features in scenic routes.
- Objective CC-4.13 Retain public easements for recreation trails.
- Objective CC-4.14 Control removal of vegetation in scenic routes.
- Objective CC-4.15 Control the alteration of streambeds and bodies of water in scenic routes.
- Objective CC-4.16 Preserve and enhance natural scenic qualities in areas beyond scenic routes.
- Objective CC-4.17 Coordinate scenic routes and recreation areas.

c. Circulation Element. State law requires that a General Plan include a Circulation Element that specifies the general location and extent of existing and proposed major streets and other transportation facilities for the movement of people, goods, and vehicles through the City. As required by law, all facilities in the Circulation Element are to be correlated with the land uses foreseen in the Land Use Element. The Draft General Plan makes this correlation through land use and circulation policies that 1) concentrate new development in areas of the City that are already well-served by existing transportation facilities, 2) emphasize transit-oriented development and design, and 3) support the growth, use, and expansion of public transit options, such as WHEELS, ACE, and BART. The Circulation Element policies are supported by three maps: Roadway Functional Classification System, Bikeways and Trails Network, and Truck Route System. These maps are presented in Section IV.B, Traffic and Circulation, in this EIR.

The goals and objectives of the Circulation Element include the following:

Goal CIR-1 Identify and develop a circulation system consistent with the Land Use Element.

Objective CIR-1.1 Plan, manage, and develop the local roadway system to support the Land Use Element.

Objective CIR-1.2 Minimize adverse impacts of regional cut-through traffic.

Objective CIR-1.3 Minimize local cut-through traffic in residential neighborhoods.

Goal CIR-2 Provide a local roadway system for the safe, efficient, and convenient movement of vehicular traffic.

Objective CIR-2.1 The City shall provide adequate road linkages throughout Livermore.

Goal CIR-3 Promote alternative transportation modes.

Objective CIR-3.1 Provide viable alternatives to single-occupant vehicle travel.

Objective CIR-3.2 Encourage vehicle trip reduction.

Objective CIR-3.3 Provide a bicycle and trails network.

Objective CIR-3.4 Provide a pedestrian network that encourages walking for transportation and recreation.

Goal CIR-4 Maintain relatively free-flowing traffic, except where the City has identified intersections or areas of the City that are exempt from the Citywide standard.

Objective CIR-4.1 Maintain adequate levels of service for all areas of the City.

Goal CIR-5 Protect neighborhood quality and community character through circulation planning.

Objective CIR-5.1 Use circulation improvements to enhance Livermore's community character and maintain the quality of life in residential neighborhoods.

Objective CIR-5.2 Plan and maintain the circulation system to prevent or minimize environmental impacts.

Goal CIR-6 Develop a Downtown circulation system that is pedestrian-oriented and supports Downtown as a destination.

Objective CIR-6.1 Design and maintain a safe and interconnected pedestrian-oriented Downtown circulation system.

Goal CIR-7 Ensure a well-coordinated regional transportation system that serves Livermore and the surrounding region

Objective CIR-7.1 Coordinate Livermore's transportation policies and programs with other jurisdictions in the region.

Objective CIR-7.2 Implement measures to support and plan for the transfer of State Route 84 to the Isabel Avenue corridor.

Goal CIR-8 Support and protect safe and efficient aviation operations at the Municipal Airport.

Objective CIR-8.1 Ensure that aviation operations, uses, and development are protected from incompatible adjacent land uses, as well as meet the needs of the local and regional economy.

Goal CIR-9 Provide adequate parking for all land uses in the City.

Objective CIR-9.1 Minimize spillover parking impacts by ensuring adequate parking enforcement and requiring sufficient parking for new development.

Objective CIR-9.2 Limit excess off-street parking development.

Goal CIR-10 Support goods movement within the City.

Objective CIR-10.1 Provide adequate roadway and rail systems to accommodate the safe and efficient movement of goods.

Objective CIR-10.2 Minimize adverse impacts to residents or businesses from rail and truck traffic.

d. Housing Element. As stated previously, the City's Housing Element (which will be Chapter 6 in the Draft General Plan) is being updated; is anticipated to be adopted in 2003, and is not included in the Draft General Plan document. Government Code Section 65588 requires Housing Elements to be updated every five years and to include specific components such as analysis of the existing housing stock, analysis of existing and projected housing needs, and quantification of the number of housing units that will be developed, preserved, and improved through the policies and actions. As stated previously, the 2003 Draft Housing Element is not being evaluated as part of this Draft EIR.

e. Infrastructure and Public Services Element. The Infrastructure and Public Services Element covers existing conditions, issues and goals, objectives, policies and actions related to infrastructure systems such as water facilities and service, wastewater collection and treatment, and water reclamation and stormwater collection facilities, as well as public services such schools and parks and recreation. While State law requires some discussion of public facilities and utilities in other elements of the General Plan, it does not mandate preparation of an infrastructure and public services element.

The City has included this Element due to the importance of these services. The following topics are addressed in this Element:

- Water Facilities and Service
- Wastewater Collection, Treatment and Disposal
- Stormwater Collection
- Police Services
- Urban Fire Protection
- Schools
- Community Health Facilities
- Libraries

Public services are provided by various government entities. In addition to the City itself, other agencies such as Zone 7, Alameda County, the Livermore Area Recreation and Park District, and the Livermore Valley Joint Unified School District provide some of the services discussed in this section.

The goals and objectives of the Infrastructure and Public Services Element are the following:

Goal INF-1 Provide sufficient water supplies and facilities to serve the City in the most efficient and financially sound manner, while maintaining the highest standards required to enhance the quality of life for existing and future residents.

Objective INF-1.1 Plan, manage and develop the public water treatment, storage and distribution systems in logical, timely and appropriate manner.

Objective INF-1.2 Require coordination between land use planning and water facilities and service to ensure that adequate water supplies are available for proposed development.

Objective INF-1.3 Identify potential water conservation and recycling opportunities that could be served by the City's existing recycled water system.

Goal INF-2 Collect, treat and dispose of wastewater in ways that are safe, sanitary, environmentally acceptable and financially sound while maintaining the highest standards required to enhance the quality of life for existing and future residents.

Objective INF-2.1 Plan, manage and develop wastewater collection, treatment and disposal systems in a logical, timely and appropriate manner.

Objective INF-2.2 Enforce City wastewater regulations

Goal INF-3 Collect, store and dispose of storm water in ways that are safe, sanitary, environmentally acceptable and financially sound while maintaining the highest standards required to enhance the quality of life for existing and future residents.

Objective INF-3.1 Plan, manage and develop the City's storm water collection system in a logical, timely and appropriate manner.

Objective INF-3.2 Encourage coordination between land use planning, site design and storm water pollution control.

Objective INF-3.3 Maintain creeks and arroyos in as natural a state as possible, while maintaining the health and safety of residents, providing flood control, preserving habitat and providing recreational use.

Goal INF-4 Provide utilities in ways that are safe, environmentally acceptable and financially sound.

Objective INF-4.1 Facilitate the development and maintenance of all utilities at the appropriate levels of service to accommodate the City's projected growth.

Objective INF-4.2 Provide reliable utility service in a way that balances the public's need and Livermore's natural environment.

Goal INF-5 Maintain a safe environment in Livermore through enforcement of the law, prevention of crime and the function of partnerships with the community.

Objective INF-5.1 Promote coordination between land use planning and law enforcement.

Objective INF-5.2 Maintain and improve law enforcement and crime prevention services to keep pace with Livermore's changing population.

Goal INF-6 Minimize loss of life and property from fires, medical emergencies and public emergencies.

Objective INF-6.1 Plan for ongoing management and development of fire protection services.

Objective INF-6.2 Promote coordination between land use planning and fire protection.

Objective INF-6.3 Enforce codes related to fire protection.

Goal INF-7 Provide education facilities sufficient to meet the demands of existing and new development.

Objective INF-7.1 Assist the Livermore Valley Joint Unified School District in developing new school facilities to serve Livermore's current and future population.

Objective INF-7.2 Coordinate land use planning with the school facility planning function of the Livermore Valley Joint Unified School District.

Objective INF-7.3 Work with the Livermore Joint Unified School District to identify appropriate areas for schools and means of school expansion in order to prevent negative impacts on the health, safety and welfare of students.

Goal INF-8 Collect, store, transport, recycle and dispose of solid waste in ways that are safe, sanitary and environmentally acceptable.

Objective INF-8.1 Promote the recovery of recyclable materials and energy from solid waste generated within Livermore.

Objective INF-8.2 Reduce the amount of solid waste that must be recycled or disposed.

Goal INF-9 The City shall support access to health care in Livermore

Objective INF-9.1 Facilitate access to health care for all Livermore residents.

Goal INF-10 Ensure an adequate range and supply of childcare services to meet the needs of all Livermore residents.

Objective INF-10.1 Plan for needed childcare facilities when considering new development.

Objective INF-10.2 Combine childcare facilities with other services and amenities in order to improve access and availability.

Goal INF-11 Provide sufficient library service to meet the information, cultural and educational needs of the population of Livermore.

Objective INF-11.1 Continue City support of the Livermore Public Library.

f. Open Space and Conservation Element. This element combines two elements required under State law: the Open Space Element and the Conservation Element. It addresses the preservation of open space and the conservation, development, and use of natural resources. The purpose of the Open Space and Conservation Element is to ensure the comprehensive and long-range preservation and management of open space land for the protection of natural resources, for economic uses, for outdoor recreation, and as a scenic resource. Since air is a natural resource, issues related to air quality are also addressed in this Element.

The goals and objectives of the Open Space and Conservation Element include the following:

Goal OSC-1 Conserve the value and function of Livermore's open space as a biological resource.

Objective OSC-1.1 Maintain biodiversity within the Planning Area with special emphasis on species that are sensitive, rare, declining, unique or represent valuable biological resources.

Objective OSC-1.2 Minimize impacts to sensitive natural habitats including alkali sinks, riparian vegetation, wetlands and woodland forest.

Objective OSC-1.3 Conserve Livermore's native trees and vegetation, which are important biological resources within the Planning Area.

Objective OSC-1.4 Coordinate with other levels of government and interested agencies to preserve natural resources.

Goal OSC-2 Conserve Livermore's waterways, tributaries and associated riparian habitats.

Objective OSC-2.1 Continue efforts to ensure that development does not harm the quality or quantity of Livermore's surface or ground water.

Goal OSC-3 Protect agricultural open space in the Planning Area and the City.

Objective OSC-3.1 Preserve agricultural land, a vital part of Livermore's open space network and an irreplaceable natural resource.

Objective OSC-3.2 Preserve valuable agricultural soils in the Planning Area.

Goal OSC-4 Preserve and utilize mineral resources in the City and its Planning Area, while ensuring minimal adverse impacts on environmental resources and surrounding uses.

Objective OSC-4.1 Achieve a balance between the need to utilize mineral resources while minimizing negative environmental impacts of resource extraction to the greatest extent feasible.

Goal OSC-5 Develop a full complement of parks and other recreational lands for public use and enjoyment.

Objective OSC-5.1 Provide a comprehensive system of parks and recreation facilities in Livermore.

Objective OSC-5.2 Provide a full range of recreational activities within Livermore's park system.

Objective OSC-5.3 Augment and develop Livermore's cultural and community facilities.

Objective OSC-5.4 Maintain and enhance public access to Livermore's unique natural resources.

Goal OSC-6 Protect and improve Livermore's air quality.

Objective OSC-6.1 Minimize air pollution emissions.

Goal OSC-7 Minimize Livermore's energy consumption.

Objective OSC-7.1 Promote a variety of approaches to energy conservation in the public and private realms.

g. Noise Element. State law requires a General Plan to include a Noise Element that addresses noise problems in the community and analyzes and quantifies current and projected noise levels from a variety of sources. The Noise Element includes goals, objectives, policies, and actions to address current and foreseeable noise problems.

The goals and objectives of the Noise Element are the following:

Goal N-1 Minimize the exposure of community residents to excessive noise.

Objective N-1.1 Establish appropriate noise levels, design standards, and noise reduction techniques for all areas to minimize the adverse effects of noise.

Objective N-1.2 Adopt design standards and identify effective noise attenuation programs to prevent noise or reduce noise to acceptable levels.

Objective N-1.3 Increase public awareness of the negative effects of noise through public education and the enforcement of existing noise control measures.

Objective N-1.4 Reduce noise levels from traffic, which is the single largest source of unacceptable noise in the City.

Objective N-1.5 Reduce the level of noise generated by mechanical and other noise-generating equipment by means of public education, regulation, and/or political action.

h. Public Safety Element. State law requires the development of a Public Safety Element to protect the community from risks associated with the effects of seismic hazards, other geologic hazards, flooding, and wildland fires. This Element also contains information and policies pertaining to hazardous materials, airport safety, and general emergency preparedness. Hazards are an unavoidable aspect of life, and the Public Safety Element cannot eliminate risk completely. The Public Safety Element contains policies designed to reduce the potential risk of death, injuries, property damage, and dislocation resulting from hazards.

The goals and objectives of the Public Safety Element include the following:

Goal PS-1 Reduce risk to the community from earthquakes and other geologic hazards.

Objective PS-1.1 Regulate new land development to prevent the creation of new geologic hazards.

Objective PS-1.2 Enforce measures related to site preparation and building construction that protect life and property from seismic hazards.

Goal PS-2 Reduce hazards related to flooding or inundation.

Objective PS-2.1 Minimize flood risks to development.

Objective PS-2.2 Minimize risks associated with potential failure of Del Valle and Patterson Dams.

Goal PS-3 Protect lives and property from wildland fire hazard.

Objective PS-3.1 Plan new development with wildland fire hazards in mind.

Goal PS-4 Protect the community from the harmful effects of hazardous materials.

Objective PS-4.1 Minimize Livermore residents' exposure to the harmful effects of hazardous materials and waste.

Goal PS-5 Minimize risks associated with aircraft operations at the Livermore Municipal Airport.

Objective PS-5.1 Regulate land use within the vicinity of the Livermore Municipal Airport.

Goal PS-6 Prepare Livermore for emergencies.

Objective PS-6.1 Prepare and keep current City emergency procedures in the event of potential natural or man-made disaster.

Objective PS-6.2 Promote public safety through public education programs.

i. Economic Development Element. Although not mandated by State law, this Element is included in the Draft General Plan in an effort to work toward and maintain a balanced mix of economic activity and to encourage the development of particular economic sectors that will contribute to the community. The Economic Development Element contains goals, objectives, policies, and actions to encourage the development of desired economic activities throughout the City. This Element is intended to provide broad policy guidance for economic development and fiscal policy.

The goals and objectives of the Economic Development Element include the following:

Goal ED-1 Maintain and expand a diverse economy to ensure economic vitality.

Objective ED-1.1 Implement policies and actions that will encourage existing businesses to remain and grow in Livermore, and attract a range of new businesses to locate in Livermore.

Objective ED-1.2 Expand agriculture and tourism as important economic sectors in the Livermore Valley.

Objective ED-1.3 Capitalize on the presence of the national laboratories in developing high technology and other related uses in Livermore.

Goal ED-2 Balance the supply of job and housing opportunities in Livermore, and match jobs and wages to housing prices.

Objective ED-2.1 Initiate strategies to attract additional higher wage jobs, leading to decreased out-commuting and a better jobs/housing match.

Objective ED-2.2 Facilitate educational and economic opportunities for young adults.

Goal ED-3 Develop and maintain a stable fiscal base that is not overly dependent on any land use, major taxpayer, or revenue type.

Objective ED-3.1 Diversify the City's revenue base by implementing policies and actions that will encourage a range of businesses to locate and expand in Livermore.

Objective ED-3.2 Ensure that development pays its fair share of public services, equipment, and facilities necessary to serve the development.

Goal ED-4 Provide the most efficient and financially sound system of public services commensurate with the highest standards required to protect the health, safety, and general welfare of all persons living and working in the Planning Area.

Objective ED-4.1 Provide public services through a phased program, ensuring the orderly implementation of policies and proposals of the General Plan, including the annexation of areas to be served and provisions for meeting the cost of such services.

4. Housing, Employment and Population Projections

For the purpose of evaluating the potential effects of the proposed Draft General Plan goals, objectives, policies, and actions, City staff and the consultant team have prepared projections for the maximum number of new housing units, jobs, and population expected under proposed Draft General

Plan land use designations. These projections are the basis for measuring the environmental effects of the Draft General Plan, and may also be used in future years to measure progress in implementation of the Plan.

a. Projections Process and Assumptions. The following describes the process and assumptions concerning citywide growth that are included in Table III-1. The process of preparing the year 2025 projections included an understanding and accounting of development that was committed to be built because construction permits and vested rights to develop had already been obtained. Additionally, it included an identification by City staff and the consultant team of vacant and underutilized parcels, and the areas where these parcels were concentrated and where changes in land use could occur. The process of working with the Draft General Plan Steering Committee and City Council to identify and evaluate alternative land uses within change areas is described in detail in documents presented to the Steering Committee and posted on the City's Draft General Plan website.¹

The following sections address citywide projection factors and projected development within change areas.

(1) Citywide Projection Factors. The citywide projection factors included in Table III-1 are an estimate of:

- New jobs that would eventually fill constructed but vacant Industrial and Business Commercial Park (BCP) buildings.
- Jobs that would result from Industrial and BCP projects (with full entitlements) that are not yet built.
- Housing units that would result from residential projects (with full entitlements) that are not yet built.
- New government-related jobs resulting from the demand for new schools and government services.
- The new jobs (304) and housing units (3,259) in the Downtown that could result from implementation of the Downtown Specific Plan.
- Housing units that could be constructed in areas that allow additional units by right.
- Other industrial, commercial, and housing development not located in defined change areas, which would result in 2,548 new jobs and eight housing units.

As shown on Table III-1, the total numbers of new jobs and housing resulting from these citywide factors are relatively large: 17,564 jobs and 4,725 housing units.

(2) Development in Change Areas. Also as part of the projections process, the City identified a number of "change areas" within which land planning efforts with the Steering Committee were focused. The locations of the change areas are shown in Figure III-2. Change areas are individual parcels and groups of parcels dispersed throughout the City that are either currently vacant or underutilized or were included as potential change areas at the property owners' request.

¹ City's Draft General Plan website: www.livermoregeneralplan.org.

Table III-1: Livermore Draft General Plan 2025 Jobs and Housing Units Summary

Location	Land Use Designations	Jobs	Housing
Citywide Development			
	Existing Industrial Space (currently vacant)	4,329	–
	Existing Business Commercial Park Space (currently vacant)	4,882	–
	Committed to be Built Industrial and Business Commercial Park Space ^a	4,801	–
	Committed to be Built Housing Units ^a	–	1,261
	Projected Government-related Job Growth	700	–
	Projected Downtown Specific Plan Development	304	3,259
	Projected Residential Infill Development ^b	–	197
	Projected Additional Development (Outside Change Areas)	2,548	8
Citywide Development Subtotal		17,564	4,725
Change Area Development^c			
Dispersed Commercial/Industrial Sites			
	Nob Hill (Pacific/S. Livermore) Low Density Mixed Use (12-15 units/acre)	168	97
	Rincon (Pine) Low Density Mixed Use (12-15 units/acre)	157	90
	Geno's Deli (North Vasco) Urban High Residential 2 (8-14 units/acre)	–	96
	Righetti (Vasco/East) Medium Density Mixed Use (15-24 units/acre)	127	117
	Vacant I-580 Commercial Site Service Commercial	252	–
	Adventus Limited Agricultural (High School Overlay)	–	–
	Ferreri Low Intensity Industrial, Limited Agriculture	244	–
Sensitive Habitat Parcels			
	Scenic Avenue Urban Medium High Residential (6 units/acre)	–	126
	Northeast Parcels Urban Low Residential 1 (1.5 units/acre)	–	119
East Side Area			
	E-1 Urban High Residential 3 (14-18 units/acre), Flexible Use Low Intensity Industrial/Residential	270	195
	E-2 Low Intensity Industrial (High School Overlay)	637	–
	E-3 Urban High Residential 3 (14-18 units/acre), High Intensity Industrial	279	534
	E-4 High Intensity Industrial (Retained)	1,197	–
	E-5 High Intensity Industrial (Retained)	997	–
Greenville BART Transit-Oriented Development (TOD)			
	North of I-580 High Density Mixed Use (38-55 units/ac), Urban High Residential 4 (18-22 units/acre), Urban High Residential 3 (14-18 units/acre), Urban High Residential 2 (8-14 units/acre)	1,307	4,474
	South of I-580 Business Commercial Park (Retained)	2,437	–
West Side Area			
	W-1 Business Commercial Park, Low Intensity Industrial (Retained)	4,942	–
	W-2 Business Commercial Park (Retained)	6,194	–
	W-3 Business Commercial Park (Retained)	8,590	690
Residential Infill Parcels^d			
	Arroyo Road/Buranis Property Urban Medium Residential (4.5 units/acre)	–	144
	Contractors Way Urban High Residential 4 (18-22 units/acre)	–	179
	Other Vacant Parcels Existing General Plan Designations Retained	–	275
	Southfront Commercial Area Service Commercial	1,098	–
Change Area Development Subtotal		28,897	7,136
TOTAL NEW DEVELOPMENT		46,461	11,861
TOTAL EXISTING DEVELOPMENT		41,500	28,300
GRAND TOTAL 2025 DEVELOPMENT		87,960	40,161

^a “Committed to be built” means that these developments have construction permits and vested rights to develop.

^b Potential infill development on residential parcels zoned RM: Medium Density Residential District and R2: Duplex District where second units are allowed by right.

^c Change areas are shown on Figure III-1.

^d On all other residential infill parcels, shown on Figure III-1, the existing General Plan designations remain in effect.

Source: Design Community & Environment, LSA Associates, Inc., 2003.

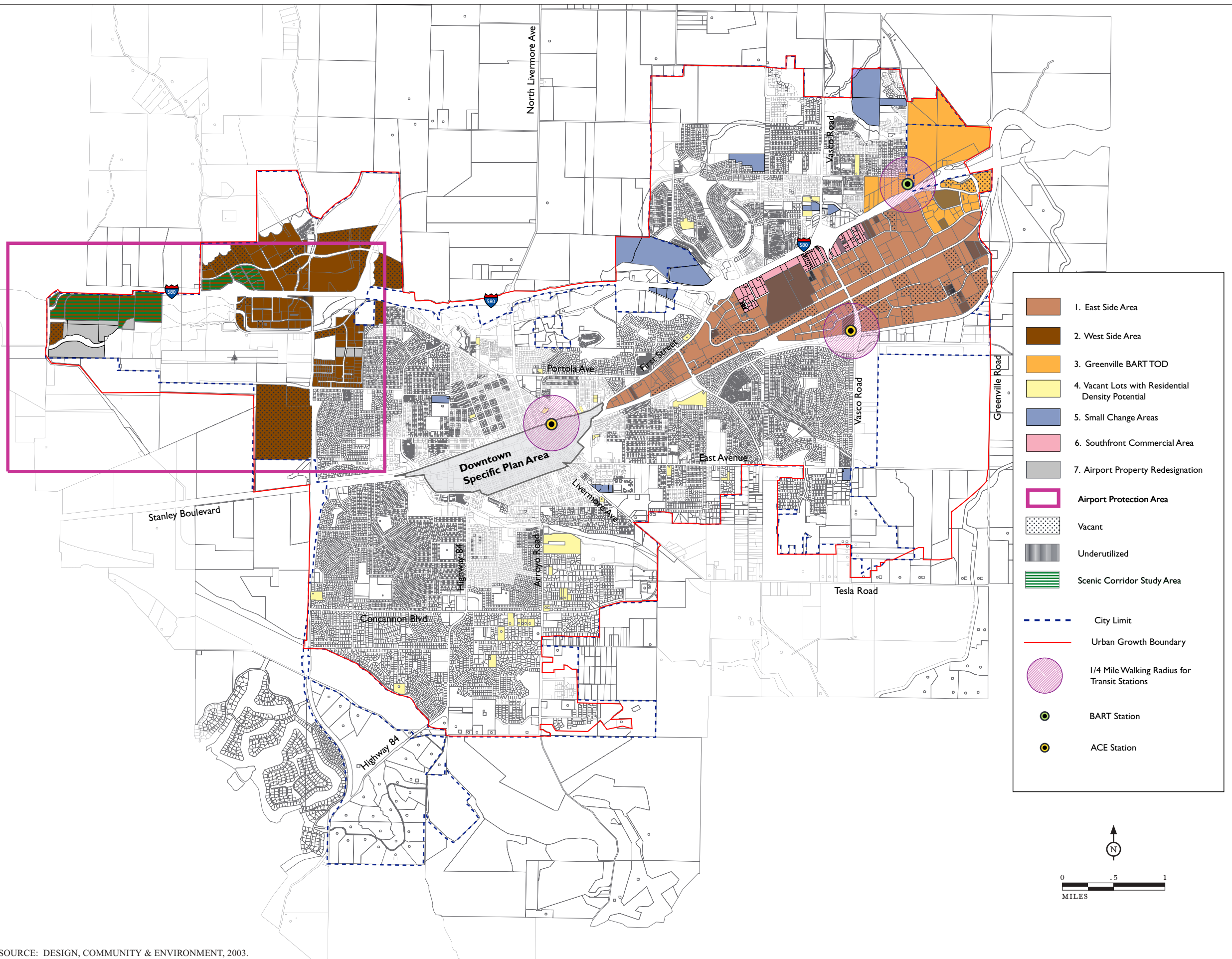


FIGURE III-2
 Livermore Draft General Plan and
 Downtown Specific Plan EIR
 Draft General Plan Change Areas

SOURCE: DESIGN, COMMUNITY & ENVIRONMENT, 2003.

As a result of the General Plan alternatives process, some of these areas received new land use designations in the Draft General Plan. In other areas, the existing General Plan land use designations were retained. Figure III-3 identifies the revised land use designations as proposed in the Draft General Plan. The City considered the following 10 change areas, outside of the Downtown, when evaluating alternatives that ultimately led to the identification of the Draft General Plan land use plan:

- Four Dispersed Commercial and Industrial Sites (included in Figure III-2 in Small Change Areas):
 - Nob Hill Site on Pacific Avenue/South Livermore Avenue
 - Rincon Site on Pine Street
 - Geno's Deli Site on North Vasco Road
 - Righetti Site on Vasco Road/East Road
- Vacant I-580 Commercial Site on Las Positas Road (included in Figure III-2 in Small Change Areas)
- Adventus Site on Las Colinas Road, north of I-580 (included in Figure III-2 in Small Change Areas)
- Ferreri Site on Lassen Road, north of I-580 (included in Figure III-2 in Small Change Areas)
- Sensitive Habitat Parcels (included in Figure III-2 in Small Change Areas):
 - Scenic Avenue Parcels on Scenic Avenue
 - Northeastern Parcels east of Vasco Road
- East Side Area
- Greenville BART Transit-Oriented Development
- West Side Area
- Residential Infill Parcels
- Southfront Commercial Area

As shown on Table III-1, the total numbers of new jobs and housing resulting from new land use designations in these change areas is 28,897 jobs and 7,136 housing units.

(3) Projections. Using the factors and assumptions described above, the following projections were established for this EIR.

As shown in Table III-1, the land use designations in the Draft General Plan would theoretically allow for the development of 11,861 new housing units, for a total of 40,160 units in the City in 2025. The increase in housing reflects Livermore's Regional Housing Needs Allocation (prepared by the Association of Bay Area Governments) of 5,107 units per year for the City's current Housing Element planning cycle of 1999 to 2006. In general, the additional units are projected to be built in the Downtown, in the area of the future Greenville BART station, in residential infill areas, and on redesignated commercial and industrial areas.

City staff projected a 2025 population figure by multiplying the number of projected single-family housing units (1,854 units) by a factor of 3.0 (persons per unit) and projected multiple-family housing units (10,007 units) by a factor of 2.28 (persons per unit). Table III-2 shows a resulting population increase of 28,378 persons for a total City population of 105,077 in 2025.

Table III-2: Draft General Plan Jobs and Population Ratio

	Jobs	Population
Existing in City	41,500	76,700
Projected Growth	46,460	28,377
Total	87,960	105,077
Projected Jobs/Employed Residents		1.5

Source: Design Community & Environment; LSA Associates, Inc., 2003.

Commercial and industrial development expected under the Draft General Plan would theoretically generate 46,460 new jobs in the City for a total of 87,960 jobs in 2025. For the Draft General Plan, the areas that were projected to add the most jobs are in existing but vacant and committed to be built space, in the East Side change area, in the area near the Greenville BART station, and in the West Side change area.

D. DOWNTOWN SPECIFIC PLAN

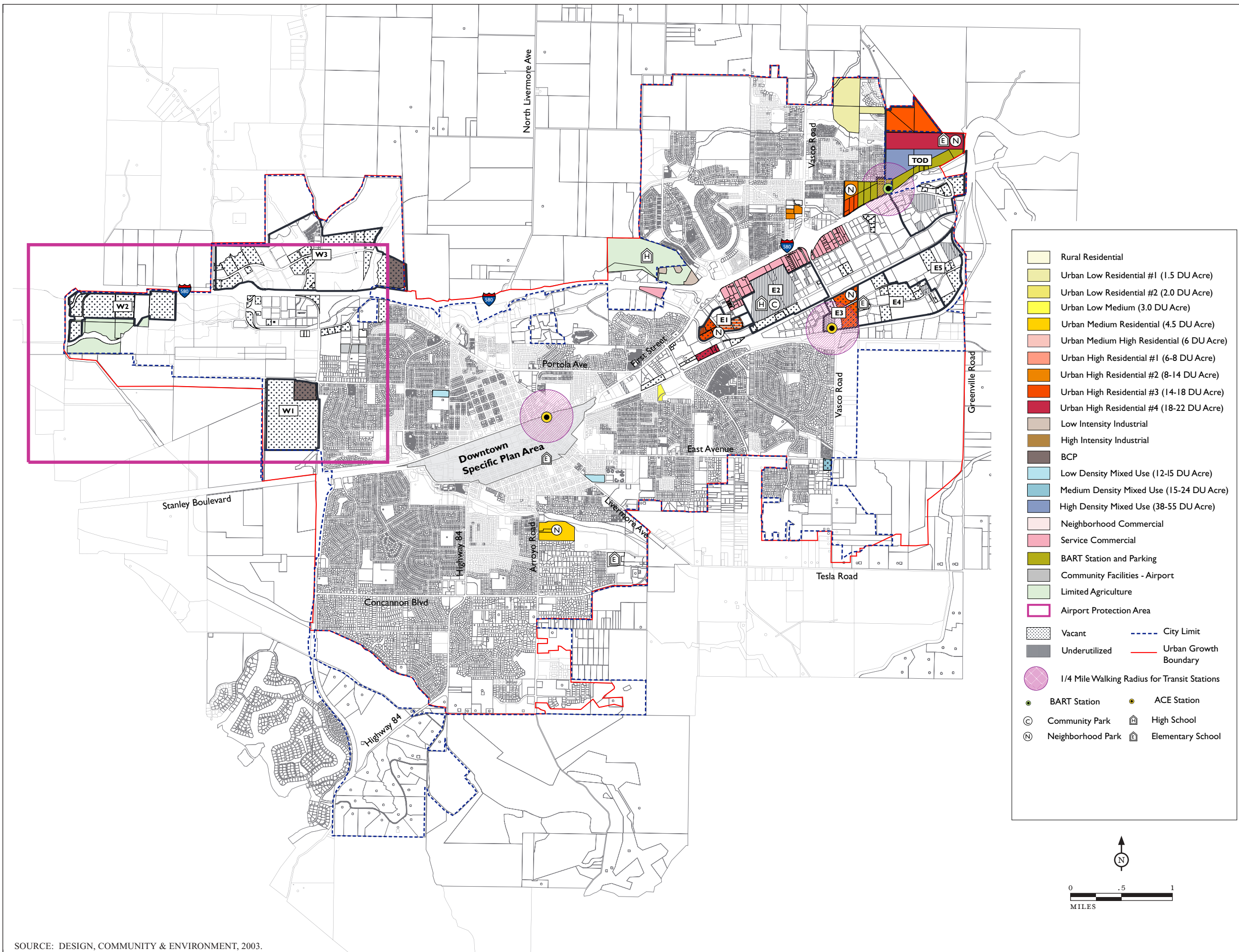
A detailed description of the proposed Downtown Specific Plan is presented below. An overview of the regulatory context for specific plans and the relationship of the Specific Plan to the General Plan is provided. The remainder of the section provides an overview of the Downtown area, the planning process, the organization of the Downtown Specific Plan, and a summary of the strategies, objectives, guiding principles, and development standards of the Specific Plan as they are analyzed in this EIR. The Downtown Specific Plan is hereby incorporated by reference into this Project Description, and should be referred to for a more detailed description.

1. Regulatory Context

The following subsection describes the legal requirements for Specific Plans under California law and the Downtown Specific Plan's relationship to the General Plan.

a. California Law. A Specific Plan is a planning and regulatory tool available to local governments in the State of California. Under California law (Government Code Section 65450 et seq.), cities and counties may use Specific Plans to implement the jurisdiction's adopted General Plan. A Specific Plan must include text and illustrations that show the location, distribution and amount of land use; public and private transportation; utilities and essential facilities in the area to support proposed land uses; standards and criteria by which development will proceed (e.g., zoning standards); standards for conservation of natural resources, where applicable; and implementing measures including regulations, public works projects, and financing measures to carry out the project. A Specific Plan must also be consistent with the goals, policies, and designated land uses of the General Plan.

b. Relationship of the Specific Plan to the Draft General Plan. Under the legal authorization set by Article 8 of the State of California Government Code (Sections 65450 - 65457), the Downtown Specific Plan, upon adoption, shall become the primary means of regulating and directing land use planning and development within the Downtown plan area. The land uses, provisions, development standards, and design guidelines in the Specific Plan are intended to replace the regulations contained in the Livermore Zoning Ordinance. The individual zoning designations for the parcels within the



SOURCE: DESIGN, COMMUNITY & ENVIRONMENT, 2003.

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FIGURE III-3

Livermore Draft General Plan and
 Downtown Specific Plan EIR
 Draft General Plan
 Revised Land Use Designations

plan area would be replaced by a single zoning designation, which would refer users to the standards and guidelines contained within the Specific Plan. Any aspects of new development or redevelopment not covered in the Specific Plan are subject to the regulations of the Livermore Planning and Zoning Code. Additionally, in those instances where the Downtown Specific Plan does not provide policy guidance, the goals, policies and objectives of the City's General Plan will apply.

The Downtown Specific Plan supercedes and replaces a previous planning document that addressed development issues for the same general area, the *Redevelopment Strategy and Urban Design Plan* adopted in 1984 and subsequently updated. The City's General Plan would be amended concurrently with the City Council's adoption of the Downtown Specific Plan to ensure that the Specific Plan is consistent with the City's General Plan. For the Downtown area, the General Plan text and land use map would be amended to: 1) allow for the establishment and implementation of the Downtown Specific Plan, and 2) accommodate the types and densities of development envisioned in the Downtown Specific Plan land use designations.

2. Downtown Area

The Downtown Specific Plan area consists of approximately 272 acres located near the geographic center of the City of Livermore. The plan area is Livermore's historic Downtown area, located about a half mile south of I-580. As shown on Figure III-4, the Downtown area is bounded on the north by the Union Pacific railroad tracks from Murrieta Boulevard to P Street, continues along Chestnut Street from P Street to North Livermore Avenue, and the railroad tracks from North Livermore Avenue to First Street. The northward curve of First Street forms the eastern boundary of the plan area. The southern boundary is more irregular, shifting as it moves from east to west from Fourth Street to mid-block between Second and Third Streets, to mid-block between Fourth and Fifth Streets, back to mid-block between Second and Third Streets, then north to Railroad Avenue at S Street and continuing west along Stanley Boulevard to Murrieta Boulevard.

While First Street is Livermore's primary east-west arterial, it does not traverse the whole width of Livermore. First Street is currently designated as State Route 84 (SR 84), and carries high volumes of commuter and truck traffic through the City. Livermore Avenue is a major north-south arterial, one of the few to extend the length of Livermore. It forms a major intersection with First Street in Downtown, and is the point of arrival to Downtown. Additional north-south linkages through Downtown are limited by the railroad tracks. L Street and Junction Avenue cross the tracks at grade, and Murrieta Boulevard, Livermore Avenue and P Street pass under the tracks. Other north-south streets dead-end at the tracks. P Street is an important pedestrian connection for the residential neighborhoods north of the railroad tracks to the supermarket on First Street.

Other primary connectors through Downtown include Railroad Avenue and Fourth Street. Railroad Avenue, which becomes Stanley Boulevard west of S Street, connects Livermore with Pleasanton and is part of the regional network of suburban arterials. It carries a high volume of vehicular and truck traffic. Fourth Street is a major street lined with a mix of residential, medical, and financial service uses and public facilities. Both streets are secondary to First Street in terms of traffic flow.

All seven WHEELS routes stop at the Livermore Transit Center in the Downtown on Railroad Avenue and make easy connections to the Downtown ACE station, also located on Railroad Avenue.

3. Downtown Specific Plan Planning Process

The City initiated the Livermore Downtown Specific Plan process to guide the growth and development of Downtown, encourage significant new economic investment, and create a lively center of activity for the City. The planning process directly involved stakeholders and community members and was organized around a series of community workshops. Workshop One was held in June 2002 and focused on existing conditions of the Downtown. Ideas for the transformation of Downtown were presented at the second workshop in August 2002. Two strategies for revitalization were shown, both of which included the introduction of new housing in and adjacent to Downtown. The participants voiced consensus for the alternative that recommended a Downtown Arts and Culture district with a defined “retail core” straddling Livermore Avenue. Following discussion of the revitalization strategies, the audience broke into groups to work on issues concerning First Street, such as the number of traffic lanes, sidewalk widths, parking configurations, landscaping, and streetscape design elements. At the third workshop (September 2002), community members envisioned future development in Downtown and addressed concepts such as additional housing in the Downtown Core, the redesign of First Street, open space, architectural character, and historic structures. During the fourth workshop (November 2002), the community discussed capital improvements and recommendations for improvements to First Street throughout Downtown. The fifth and final public workshop took place on January 8, 2003. This workshop reviewed all of the issues dealt with during the community process. The consultants summarized their recommendations on land use development intensity, protections for historic buildings, parking and traffic, and economic conditions. The potential impacts of proposed development were a key topic of discussion. Concerns raised included the scale and intensity of new development, increased traffic, and the amount of necessary City subsidies.

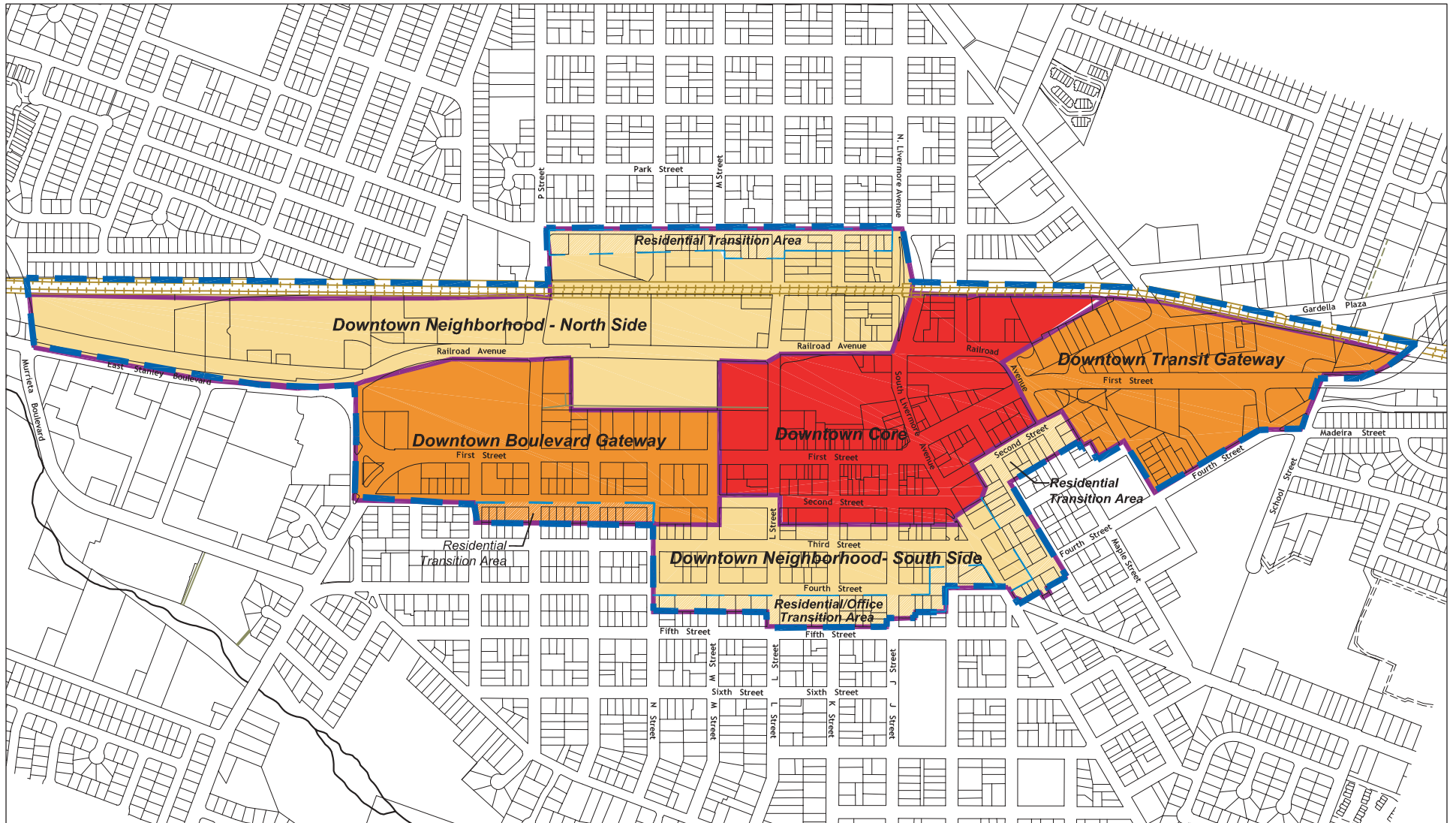
Information gathered at community workshops was complemented by conversations with various City organizations, including Livermore Main Street, the Chamber of Commerce, members of the Livermore Valley Center, and other City groups. The Livermore City Council reviewed the detailed recommendations developed in response to the community workshops and focus group discussions at a study session held on February 3, 2003. At that study session, the City Council made recommendations on issues that should be reviewed closely and gave their approval for preparation of the Specific Plan based on the recommendations of City staff and the consultant team.

4. Downtown Specific Plan Organization

The guidelines, strategies, and policies of the Downtown Specific Plan are presented in separate chapters as outlined below and described in more detail in the sections that follow.

a. Revitalization Strategy. The Revitalization Strategy chapter establishes a coordinated direction for all Specific Plan elements, and guides all policies, principles, plans, and designs so that they serve to achieve specific community objectives for the revitalization of Downtown.

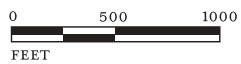
b. Land Use and Development Policies. This chapter is the first of several that contains the regulatory portion of the Specific Plan. It describes the individual land use plan areas, the urban design principles behind their formation, and the growth management policy and regulatory framework that will govern development actions within the Downtown area. It also details City policy for new, modified, and historic structures in the Downtown.



LSA

FIGURE III-4

Livermore Draft General Plan and
 Downtown Specific Plan EIR
 Downtown Specific Plan:
 Land Use Plan Areas



- Plan Area Boundaries
- Project Study Area
- Transitional Areas

SOURCE: FREEDMAN, TUNG & BOTTOMLEY, 2003.

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c. Development Standards for Downtown Districts. The development standards are the detailed regulations for site development, building siting, and overall design that apply to each plan area. These measures provide a framework for public and private actions throughout the Specific Plan area, and ensure that new investment at any scale will support the principles and goals of the community's vision.

d. Design Standards and Guidelines. This chapter describes the architectural traditions in Livermore that provide the basis for the design standards and guidelines, also contained within the chapter. The design standards and guidelines incorporate urban design principles intended to insure that new developments contribute to a livable and attractive townscape. The standards are design requirements applicable to all types of development in the plan area. The guidelines are structured to provide flexibility for building owners and potential investors by supporting a variety of ways of carrying out a given intent, while continuing to promote high quality development. This chapter contains specific Design Guidelines for Downtown historic structures.

e. Circulation and Transportation. This chapter outlines the existing street network in the Specific Plan area, addresses future transportation conditions, includes improvement strategies for the transportation network to support the types and amounts of new development allowed within the Specific Plan area, and provides design standards for proposed street improvements as well as new streets. The specific physical modifications proposed for First Street that will result in changes in circulation patterns are also addressed in this chapter. Other transportation facilities examined in this chapter include roadways, intersections, transit services, pedestrian facilities and bicycle facilities.

f. Parking. This chapter addresses parking conditions and needs in the Downtown. As Downtown revitalizes, demand for parking will increase. The recommendations described in this chapter are intended to ensure that parking is available and easily accessible in order to support the improved and continued success of Downtown businesses. The chapter describes an overall strategy for providing access to public uses (including retail, dining, and cultural spaces) in the Downtown. This chapter also provides specific parking requirements for new development by use.

g. Utilities. This chapter reviews the major capital improvements required to support development in the Downtown plan area. Topics include existing water, storm drainage, and sanitary sewer systems, and the improvements to these systems that will be necessary to meet the community's vision.

h. Implementation. This chapter lists and prioritizes strategic steps for near-term implementation of the Plan to meet the goal of Downtown revitalization. The chapter identifies capital improvement projects, including catalyst projects that would provide the most benefit in achieving community objectives. It also describes the steps required to implement and administer the Specific Plan.

5. Revitalization Strategy Chapter

The Revitalization Strategy chapter indicates that the primary goal of the Downtown Specific Plan is “to revitalize Downtown as the most public district in the City—the indisputable functional, symbolic and activity ‘heart’ of the community.” The Plan identifies the following objectives to achieve that goal:

1. Provide a cohesive, comprehensive strategy that addresses each of Downtown's roles as the center of the City: as Livermore's most unique shopping district, as its civic meeting place, and as neighborhood hub for the residential enclaves that surround it.
2. Bring to the surface the distinctive visual character of Livermore, by drawing from the best of what is already there: Downtown's historic fabric, its yellow-bricked buildings and ornate detailing, and some of the surrounding wine country.
3. Reflect the unique qualities of the Livermore community: its social history, its architectural heritage, its agricultural past, the scientific and artistic influences of today, and the individuality of the populations who call it home today.
4. Make Downtown a part of the regional economy and an economic success to ensure its continued viability with market attractions that meet the needs of the area, and are a draw for the community and beyond.

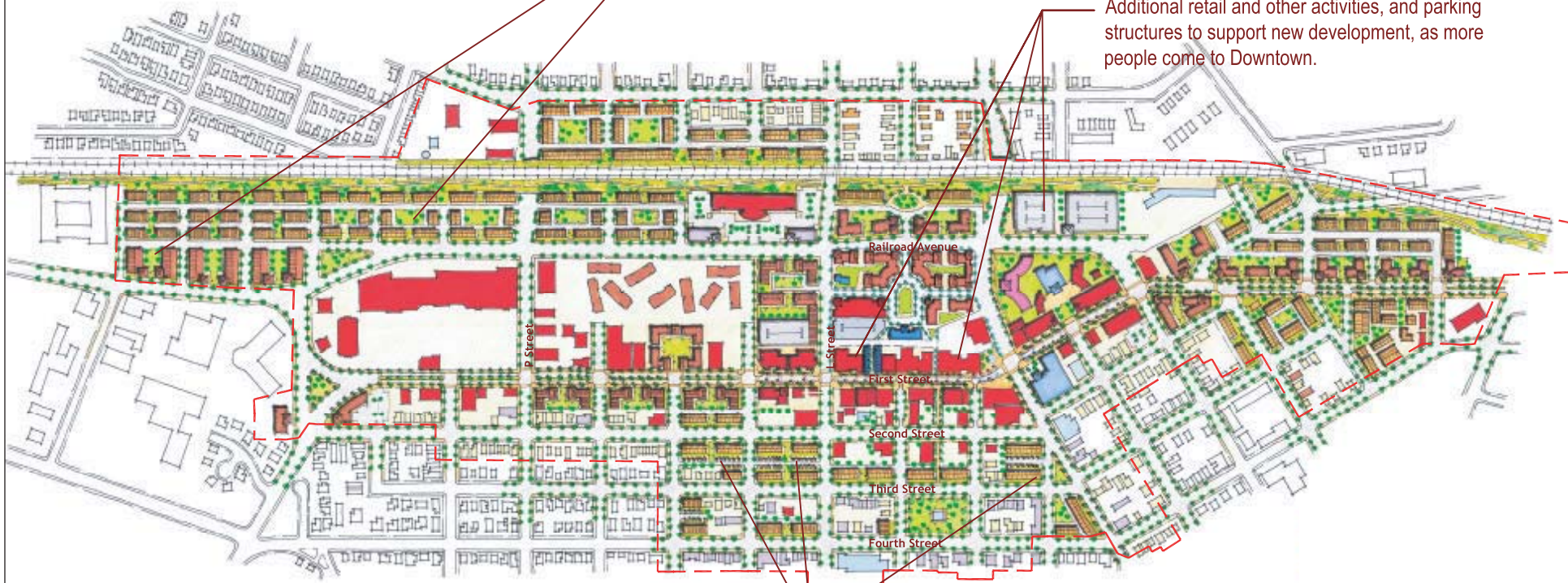
The Specific Plan outlines strategies for revitalizing Downtown. For the near term, the Plan proposes the following strategies, summarized and listed in order of priority from highest to lowest, based on their potential to deliver desired revitalization objectives.

1. Promote the concentration of activity-generating uses in a compact cluster in the center of Downtown.
2. Maximize investment in new housing construction throughout the Specific Plan area.
3. Dramatically transform the character of the Downtown's primary pedestrian space, First Street, along its length in the Downtown Core between M Street and Maple.
4. Focus immediate attention on opportunity sites capable of delivering dramatic short-term beneficial change.
5. Promote the development of an arts and culture component, to make Livermore's Downtown a "Center For The Arts".
6. Identify, target and recruit uses with a wide regional appeal that are under-supplied in the Tri-Valley.
7. Place high priority on the design, financing and construction of a new Performing Arts Center in the heart of Downtown.
8. Revive the role of the First Street and Livermore Avenue intersection as the Heart of the City.
9. Build on the high quality stock of historic structures to set the tone for design in the district.
10. Leverage the high amenity value of the Carnegie Block to promote investment in the residential neighborhood south of the Downtown Core.

LONG TERM

New neighborhoods on redevelopment sites as demand for Downtown housing grows.

Additional retail and other activities, and parking structures to support new development, as more people come to Downtown.

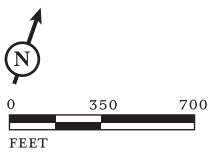


Continued residential infill throughout nearby neighborhoods as developer interest in Downtown grows.

LSA

FIGURE III-5

*Livermore Draft General Plan and
Downtown Specific Plan EIR
Downtown Specific Plan:
Illustrative Future Land Use*



- Retail and Restaurant
- Hotel
- Office
- Arts and Cultural Facilities
- Civic Facilities
- Multi-Family Residential
- Townhouse Residential
- Single Family Residential

SOURCE: FREEDMAN, TUNG & BOTTOMLEY, 2003.

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11. Enhance the convenience of Downtown parking and access.
12. Take every opportunity to concentrate civic (and quasi-civic) buildings in the Downtown.
13. Take every opportunity to revive Downtown's role as a primary job center.
14. Maximize transit opportunities for commuters to conveniently travel to Downtown Livermore.

6. Land Use and Development Policies Chapter

The Land Use and Development Policies chapter is the first of several that contains the regulatory portion of the Downtown Specific Plan. Figure III-5 shows an illustrative diagram of future land uses. The Draft General Plan land use designation of Downtown Area (DA) and the associated Downtown Specific Plan policies and guidelines would replace the existing zoning designations within the Specific Plan area. This chapter of the Specific Plan also defines individual plan areas, urban design principles, and the growth management policy for the Downtown.

a. Plan Areas. The Specific Plan would establish the following land use plan areas, each of which would serve a distinct purpose in the greater Downtown. Figure III-4 shows the location and boundaries for the Downtown plan areas.

(1) Downtown Core. The Downtown Core is centered on the intersection of First Street and Livermore Avenue. Its northern boundary is Railroad Avenue west of Livermore Avenue and the Union Pacific railroad tracks east of Livermore Avenue; to the south it extends to include all of the properties on the south side of Second Street from L Street to Livermore Avenue, as well as the southeast corner of Second Street and Livermore Avenue (currently occupied by the U.S. Post Office). Its western edge is M Street from Second Street to Railroad Avenue, and its eastern edge is formed by Maple Street from Second Street to Railroad Avenue.

The Downtown Core is the area slated for the highest-intensity development. Mixed use is required on all parcels fronting First Street in this District. Specialty retail and service uses would be required along First Street at the ground level; housing and office uses would be permitted on upper stories and throughout the rest of the plan area at the ground level. The establishment of arts and cultural facilities would be encouraged in the Core. A maximum height of three stories and 36 feet would be allowed along First Street. Buildings may go up to four floors and 50 feet where the street frontage is 100-feet in length or more. Height, setback, and design restrictions for buildings adjacent to historic structures are also identified for this plan area. Parking lots are to be located at the rear of buildings.

(2) Downtown Boulevard Gateway. The Downtown Boulevard Gateway is centered along the spine of First Street, to the west of the Downtown Core. It extends from M Street on the east to S Street. The Downtown Boulevard Gateway provides a mixed-use boulevard from Holmes Street leading to the Downtown Core. Housing, office, retail and commercial uses would be permitted. The maximum building height along First Street would be three stories (36 feet). To create a supportive setting for housing, building setbacks and streetscape and frontage landscaping would be required.

(3) Downtown Transit Gateway. The Downtown Transit Gateway is also centered along the spine of First Street, to the east of the Downtown Core. The Downtown Transit Gateway also would provide a residentially-focused boulevard leading to the Downtown Core. Housing, office, and

lodging uses would be permitted along with commercial uses in support of activities in the adjacent Downtown Core plan area. The maximum building height along First Street would be three stories (36 feet). To create a supportive setting for housing, building stepbacks and streetscape and frontage landscaping would be required.

(4) Downtown Neighborhood – North Side. This northern neighborhood plan area will be residentially focused and will provide a transition between the Downtown Core and existing residential areas. Housing and lodging uses would be permitted, however, *only* residential will be permitted in the “Residential Transition Area.” Live-work, public and quasi-public, health and exercise, limited neighborhood retail uses, and state licensed banks would be conditionally permitted. Design restrictions would be applied to ensure compatibility with housing. The maximum building height will be three floors/36-feet, however, in the Residential Transition Area building heights may not exceed two floors/24-feet. To create a supportive setting for housing, building stepbacks, streetscape and frontage landscaping would be required. A minimum front setback of 15-feet will be required, except for Neighborhood Serving Retail uses, which will have no minimum front setback (but will have a maximum of 20-feet).

(5) Downtown Neighborhood - South Side. This southern neighborhood will be a residentially-focused neighborhood providing a transition between the Downtown Core and existing residential areas. Housing and lodging uses would be permitted. Only single-family detached residential will be permitted in the Residential Transition Area. However, business, professional, government, medical, and dental offices will be permitted in the Residential/Office Transition Area, but only within existing and historic structures fronting on Fourth Street. Live-work, public and quasi-public, health and exercise, limited neighborhood retail uses, and state licensed banks would be conditionally permitted. Design restrictions would be applied to ensure compatibility with housing. The maximum building height will be three floors/36-feet, however, in the Transition Areas building heights may not exceed two floors/24-feet. A minimum front setback of 15-feet will be required.

b. Urban Design Principles. The Downtown Specific Plan provides four primary urban design principles that form the basis of the urban design framework underlying all of the policies contained within the Specific Plan. The land use, building design, and capital improvement policies are designed to support the following principles:

1. The Downtown Core should be the active, dynamic center of the City of Livermore.
2. Housing should be well-distributed throughout the Downtown
3. Art and culture are a thread that weaves throughout Downtown.
4. Open space is found throughout the Downtown.

c. Growth Management Policy. A major policy change in the Downtown Specific Plan is to exempt residential development in the Downtown from the City’s Housing Implementation Program (HIP) under certain conditions, as follows. Residential growth within the Specific Plan area is proposed to occur under the following procedures:

1. Residential development in the Downtown Area shall be exempt from the HIP process if it is demonstrated that its public infrastructure and service needs can be adequately met. Public infrastructure and service needs include, but are not limited to, water, sewer, roads, schools and parks. Meeting this requirement can be achieved through a combination of payment of City fees, on- and off-site improvements, and appropriate agreements with the City and other public agencies.
2. Residential dwelling units will be “allocated” when a Final Subdivision Map is approved by the City Council, and the City determines adequate infrastructure (including but not limited to sewer, water, and circulation) is either available to serve the project or will be constructed as part of the project. If no Final Map is required, dwelling units will be allocated when the required land use entitlement is approved by the City (e.g., Design Review, Site Plan Approval, Conditional Use Permit, etc).
3. An average of up to 200 dwelling units per year can be *allocated* beginning January 1, 2004 for a period of ten years (2005-2014) ending on December 31, 2013. A maximum of 2,000 dwelling units may be allocated during this ten-year period. Residential projects, or projects with a residential component, in the Downtown Specific Plan are not required to participate in the City’s annual, competitive Housing Implementation Program (HIP) for this first ten-year cycle but will be counted as part of the City’s overall growth rate.
4. Beginning January 1, 2014, there are no annual average dwelling unit caps. The number of dwelling units allocated will be subject to the City’s adopted growth rate and the Downtown Specific Plan standards. Unused dwelling units during the initial ten-year cycle ending in 2013 may be carried over into subsequent years. As of January 1, 2014, Downtown Specific Plan dwelling units will be required to compete in a City HIP, or subsequent replacement program.
5. No dwelling unit allocations from elsewhere in the City may be used within the Downtown Specific Plan area.
6. Allocations are awarded on a first-come, first serve basis as described in paragraph 1 above for the first ten years beginning January 1, 2004 and ending on December 31, 2013. After this initial ten year period, projects will be subject to the HIP (or subsequent replacement program) process again.

7. Development Standards Chapter

The Downtown Specific Plan contains development standards that address those aspects of development that are essential to achieve the goals of the Revitalization Plan. The development standards would be mandatory and address the following development factors for each plan area:

- Purpose of the Plan Area,
- Permitted land uses,
- Development intensity,
- Building height restrictions,
- Required setbacks,

- Site development, including block pattern, driveway access, open space, landscaping and screening and public works, and
- Noise standards.

8. Design Standards and Guidelines Chapter

The Design Standards and Guidelines chapter of the Specific Plan provides guidance for architectural and landscape character to be incorporated into renovation and new development projects. The design standards and guidelines would also serve as criteria for design review by City staff, the Historic Preservation Commission, and the Planning Commission. They are intended to direct building design so that it is of a character and quality appropriate to the City of Livermore. The design standards and guidelines set up the structure for buildings that contribute to the already strong “sense of place” inherent in Downtown Livermore. They are based on the City’s architectural heritage, drawing from the specific forms, colors, and materials that characterize the City’s most valued buildings and landscapes. New construction is directed to take cues from regional and local tradition; buildings must provide well-crafted architectural details, and be made of quality construction with durable and long-lasting materials. They must relate to their context in terms of materials, colors, proportions, and overall composition. They must be sited and designed to assist in creating a strong pedestrian realm.

The design “standards” are specific and describe the mandatory elements of building and site design in the Downtown. The design guidelines are “recommendations” to allow flexibility and encourage creativity of designers, developers and owners. The chapter provides design standards and guidelines for new building types (commercial and mixed use buildings, multi-family residential buildings, and single-family houses) for parking structures, historic structures, signs, site improvements, street furnishings, landscaping and lighting.

9. Circulation Chapter

The Circulation chapter of the Downtown Specific Plan recommends improvement strategies for the transportation network to support the types and amounts of new development allowed within the Specific Plan area. Physical modifications are proposed that would result in changes in circulation patterns in the Specific Plan area. The transportation facilities examined include roadways, intersections, transit services, pedestrian facilities and bicycle and trail facilities. Each of these components is discussed briefly below.

a. Proposed Roadway and Intersection Improvements and Modifications. Key roadway improvement recommendations include the following (see the Downtown Specific Plan for an expanded description of these recommendations and detailed street standards):

- **New Streets in Lucky’s Megablock.** To create better connections to the Downtown Core, new development of the former Lucky’s site at First Street, L Street, Railroad Avenue and Livermore Avenue will be required to provide new north-south and east-west connections through the site. These connections will include the extension of K Street into the site from the north, and a new east-west street bisecting the site.
- **I Street Connection through the Livermore Valley Center Block.** A new pedestrian or vehicular connection aligning with I Street should be provided through the site bounded by First Street, Livermore Avenue, Railroad Avenue and Maple Street (proposed for the Livermore

Valley Center). This new connection will link new development on this site and throughout the Core to parking and transit connections along Railroad Avenue at I Street.

- Narrow First Street from its current four-lane configuration to a two-lane configuration from P Street to Railroad/Maple Street with left-turn lanes at signalized intersections. Within the Downtown Core, between M Street and Livermore Avenue, this configuration will include one lane in each direction for moving traffic, left turn lanes at selected intersections and diagonal parking/flex zones adjacent to the traffic lane in the new two-lane section. These changes will significantly reduce the roadway capacity of that portion of First Street and will result in the redistribution of traffic volume to other parallel and connecting roadways. Some of the traffic that currently uses First Street will use Railroad, Second, Third and Fourth Streets, while some is expected to reroute entirely outside of Downtown to other facilities such as Isabel Avenue or I-580. As traffic is diverted from First Street, some of these trips will be diverted to nearby alternatives such as Fourth Street and Railroad Avenue. To ensure livability for those who live along these thoroughfares, the City should make efforts to improve these streets and enhance the buffering of homes from the impact of street traffic. Recommendations include dense plantings of street trees to increase the buffer between the buildings and the road.
- At Railroad Avenue from East Stanley Boulevard/S Street to First Street improve the roadway to provide four through traffic lanes. Existing parking may need to be eliminated to accommodate improvements. In the longer term, Railroad Avenue may be widened further to accommodate on-street parking.
- Increase capacity and/or enhance traffic flow and minimize vehicle delay on parallel routes to First Street, primarily Railroad Avenue and Fourth Street, but also include improvements to Second Street and Chestnut Avenue as appropriate.
- Enhance north/south roadways leading to Downtown, including consideration of a grade separation of the railroad at-grade crossing on L Street if frequent rail service significantly disrupts traffic flow.
- Enhance east/west circulation via improvements along First Street on the east side of Downtown and along Holmes Street west of Downtown. These improvements will facilitate traffic flow from First Street and Holmes Street to Railroad Avenue and Fourth Street.
- Add/modify traffic signals to facilitate the new traffic movements primarily on the east and west sides of Downtown where traffic movements are to be shifted from First Street to Railroad Avenue and Fourth Street.

Key intersection improvements proposed by the Specific Plan include the following:

- **First Street/Livermore Avenue.** Modify this intersection to reduce crossing distance for pedestrians, from all points at its edges. Capacity for traffic would be reduced to one lane in each direction, along both First Street and Livermore Avenue, with an additional center turning lane provided at each of the four sides. This would reduce curb-to-curb widths from approximately 65 feet across Livermore Avenue, and up to 70 feet across First Street, to a much more manageable 34 feet across. As a part of this improvement, the right turn lane on eastbound First Street that currently allows turning movement onto Livermore Avenue would also be closed and dedicated as public space.
- **First Street/Inman Street and Fourth Street/Inman Street.** Modify and improve this intersection pair to better facilitate traffic flow from First Street to Fourth Street on the periphery

of Downtown. At this location, additional capacity can be provided to help reroute some incoming traffic from First Street toward alternative routes, including Fourth Street. The concept is to eliminate on-street parking and restripe Inman Street to provide additional lanes, and provide traffic signals as required to allow for the easy movement of vehicles to Fourth Street. It is important to note that the decision to install a traffic signal depends on the analysis of traffic signal warrants per Caltrans guidelines, as well as the engineering judgment of the City. Therefore, the conceptual recommendation to install a traffic signal must be verified as Downtown develops and traffic patterns change, based on updated traffic studies and counts.

- **First Street/Railroad Avenue/Maple Street.** This is perhaps the most critical intersection to facilitate the likely redistribution of traffic due to the Specific Plan changes along First Street. Additional capacity for turning traffic must be provided at this location to allow vehicles to access both Railroad Avenue and Fourth Street (via Maple Street). Key enhancements include adding a westbound left turn lane to allow left turn movements from First Street to Maple Street, providing a dual westbound right turn lane from First Street to Railroad Avenue, and modifying signal operations to reflect the revised traffic demand patterns.
- **Railroad Avenue.** Railroad Avenue will become a critical route in Downtown and will be expected to experience increased traffic flow as a result of growth and changes to First Street. Railroad Avenue is therefore recommended to be improved to provide two through lanes in each direction from First Street westward to where there are currently four through lanes. This will require intersection and mid-block modifications including restriping, removal of raised median islands, parking prohibitions and traffic signal modifications. Concept designs are included in the appendix to this report, which show the locations of those modifications to achieve the four through-lane configuration. As redevelopment occurs along Railroad, move the curb to provide on-street parallel parking and four through lanes.
- **Fourth Street.** Fourth Street currently has four through lanes in Downtown, however, there are no separate left turn lanes at the key intersections of P and L Streets. With increased traffic demand on Fourth Street and potentially increased turning movements, separate left turn lanes will be required to facilitate east/west through traffic movements without blockage by left turning vehicles. This will require removal of on-street parking on Fourth Street near the intersections at L Street and at P Street.
- **First Street/Second Street.** Second Street has one lane in each direction and diagonal parking in some parts of Downtown; and it provides a logical connection to First Street east of Downtown. An impediment to the use of Second Street as an alternate route is the skewed intersection at Second Street/Livermore Avenue. Realignment and possible signalization of this intersection would facilitate easier east/west traffic movements and make Second Street a more attractive east/west alternative to First Street. This would be a longer-term improvement.
- **L Street at Railroad Crossing.** The existing at-grade rail crossing on L Street south of Chestnut Avenue provides an impediment to the future use of L Street as an alternative north/south entrance/exit for Downtown. Grade separation of this crossing should be considered for implementation as development occurs and traffic volumes increase along L Street combined with a significant increase in rail traffic.
- **Holmes Street/Fourth Street.** Modify this intersection to extend the northbound right-turn lane to Fourth Street and to provide four east-west through lanes through the intersection.

- **Holmes Street/First Street/S Street.** Modify this intersection to improve left turn access onto S Street from northbound Holmes Street by providing dual northbound left turn lanes onto S Street from Holmes Street.

b. Draft General Plan Level of Service Policy. Level of service (LOS) is a qualitative measure describing the efficiency of traffic flow. Currently, the City considers level of service (LOS) mid-D to be the upper limit of acceptable service at major intersections in Livermore. The LOS mid-D objective for the roadway system reflects the City's policy to maintain stable traffic flow throughout the City, recognizing that peak hour congestion may occur at locations near freeways or other locations with unusual traffic characteristics due to regional traffic flow.

As part of the General Plan update process, the General Plan Steering Committee recommended that there be no LOS standard within the Downtown Specific Plan area. The rationale underlying this policy change would be to recognize that the trade-off to having a higher density, revitalized, pedestrian-friendly Downtown would be higher levels of traffic congestion. The Draft General Plan includes policy CIR-4.1.P1 that states there shall be no level of service standard for the Downtown Area.

c. Pedestrian Connections. The Specific Plan proposes the following three key actions to improve the pedestrian "realm" of Downtown, as follows:

- Expand usable space for pedestrians along First Street by creating a "flexible zone" and improving the streetscape with more shade trees and seating, pocket plazas to stop, rest and gather; outdoor areas for eating; and public places for art and special events.
- Provide pedestrian connections at a minimum of every 400 feet. Development standards have been developed for each Downtown plan area that require new development to match the typical block increment of 300 by 200 feet, and be no greater than a maximum of 400 by 300 feet. Where unique site constraints prevent this, blocks are required to be subdivided by pedestrian pathways.
- Maximize connections to and from major destinations (e.g., the Livermore Valley Center, the Downtown retail core, and the new cineplex) to Downtown transit facilities by providing clear pedestrian ways.

d. Non-Motorized Transportation. The Specific Plan proposes that bicycle lanes be provided throughout the Downtown where possible. Striped lanes are recommended for Third, Chestnut, and P Streets, consistent with the Draft General Plan and 2001 Bikeways and Trails Master Plan. No bicycle lane would be provided along First Street. Bike route signs to give legibility to the overall bike network are recommended for First Street, L Street and Railroad Avenue. The Iron Horse Trail, a multi-use regional trail, will be constructed along the Union Pacific Railroad right-of-way, from Murrieta Boulevard east to North Livermore Avenue and to the ACE station along the southside of the tracks. Eventually the Iron Horse Trail will connect with an existing system that runs between Walnut Creek and Dublin. This trail, when complete, will provide an important regional and local connection from the outskirts of and through the Downtown to residential, cultural and open space uses. It will also provide a connection to existing and future transit facilities in the Downtown. Construction of the trail section is required to match the standard multi-use trail section for the Iron Horse Trail described and illustrated in the Bikeways and Trails Design Guidelines and Best Practices as adopted with the Bike and Trails Master Plan Update of 2001

e. Truck Route Modifications. The Specific Plan indicates that the designated truck routes within the Downtown Specific Plan area are an obstacle to creating a pedestrian-friendly environment and that therefore truck routes need to be modified. The Specific Plan recommends shifting truck routes off the existing SR 84 and over to the Isabel Avenue corridor. This issue has been addressed in the context of the General Plan.

f. Transit Systems. The Specific Plan recommends that the existing transit route pattern in Downtown continue on Railroad Avenue and Fourth Street, and that the Livermore Transit Center and the Dublin/Pleasanton BART Station Transit Center are maintained as the focus of transit activity in the Downtown Core. The Specific Plan supports the continuation and expansion of the Altamont Commuter Express (ACE) passenger train service which uses the Union Pacific railroad track and has a stop in Downtown on Railroad Avenue. The Draft General Plan contains action CIR-3.1.A4 stating that the City shall preserve existing rail corridor right-of-way adequate for the provision of other rail transit options to serve the City. The Bay Area Rapid Transit District (BART) and the Alameda County Congestion Management Agency have been sponsoring the I-580 Corridor/BART to Livermore Study, which considers a variety of technologies for additional passenger rail service through Livermore including a full BART extension, heavy and light rail diesel multiple units (DMU). Alignment options being considered include the I-580 median, and the Union Pacific rail corridor through Downtown Livermore. Passenger rail service through Downtown Livermore could have a positive impact to the Downtown revitalization effort by providing transit options for Downtown residents, office employees and retail customers. However BART (or any other rail service provider) would need to address significant issues such as noise and vibration impacts, station locations, traffic and parking impacts including the potential need to provide grade separated crossings at L Street and at Junction Avenue. Rail freight through Livermore is also served by the Union Pacific Railroad, and rail freight service is not expected to change.

11. Parking Chapter

A parking model was prepared for the Downtown area of the City of Livermore and used to evaluate future parking conditions associated with the changes in land use proposed in the Specific Plan. The Specific Plan concludes that additional parking appears to be required in the evening, mainly in the area near First Street and Livermore Avenue and would be associated with the proposed performing arts theaters and the cinema. The Specific Plan indicates that, ideally, new parking could be provided via public/private partnerships as part of development activity. The Specific Plan recommends that new parking be provided via public/private partnerships as part of development activity using in-lieu fees to offset initial construction of the parking facilities. In addition to the comprehensive strategy detailed in this chapter of the Specific Plan, non-exclusive parking should be pursued to most effectively utilize the existing private parking supply. Non-exclusive parking enables parking resources in a central area to be used by several uses with parking demands that peak at different times of the day. The Specific Plan also contains parking requirements for new development by specific uses.

12. Public Utilities and Infrastructure Chapter

Chapter 9, Public Utilities and Infrastructure, of the Specific Plan contains provisions for storm drainage, water, and sanitary sewer systems to support revitalization of the Downtown. Specific improvements and policies are identified in the Public Utilities and Infrastructure chapter.

13. Implementation Chapter

The Implementation chapter of the Downtown Specific Plan details and prioritizes public improvements to be made by the City to support and promote the desired types of development. Strategic action zones are identified where implementation efforts should begin, and improvements including “catalyst projects” and provision of public open space are recommended. This chapter also identifies key actions for implementing the Specific Plan

a. Strategic Action Zones. The Specific Plan identifies the following strategic action zones, where the Plan indicates the implementation efforts should begin:

1. The Revitalization Zone, which demarcates those areas that are the highest priority for Downtown revitalization. It consists of those areas fronting First Street in the Downtown Core.
2. The Catalyst Zone, which contain sites that have been designated as locations for immediate investment. These areas are also short-term priorities, and in several instances overlap with the Revitalization Zone. Redevelopment on these sites would be targeted to meet community objectives, stimulate Downtown redevelopment and demonstrate to investors the possibilities of Downtown.
3. The Large-Scale Redevelopment Zone, which contains parcels intended to provide sites for large-scale redevelopment. The Plan indicates that these areas, which are located generally north of Railroad Avenue, are currently underutilized or vacant, and offer potential to be obtained and assembled in the near term for future redevelopment.
4. The Medium-Scale Infill Zone, which contains parcels that make up most of the commercial area fronting First Street west of Downtown. The Plan indicates that these sites would provide additional area for uses that support the revitalization of the Downtown Core but do not compete with it, such as housing, office, or support commercial development.
5. The Neighborhood Enhancement Zone, which contains infill parcels generally along the north and south boundaries of the plan area. The Plan indicates that treatment of development at these infill parcels will be key to maintaining and strengthening the character that already exists in the surrounding existing neighborhoods.

b. Catalyst Projects. The Specific Plan identifies “catalyst projects” designed to stimulate substantial new investment in areas of the Downtown. Specific actions to be taken by the City are summarized as follows:

1. Initiate the development of the Livermore Valley Center, a facility planned to include a performing arts facility, local theater, boutique-style hotel, parking structure, restaurants, and retail centered around a park plaza.
2. Initiate a high quality, mixed use project on the former “Lucky’s” site in the heart of the Downtown. This development could have several components: a regional destination Design Center; a parking structure to serve Downtown retail development; a vibrant neighborhood of new housing and open space; and art components such as live-work units and an artists workshop/center.

3. Assist in the creation of a vibrant large-scale retail and entertainment facility for the community at the Groth Brothers site at First and L Streets.

c. Public Open Space. The Specific Plan proposes that the City take actions to create the following public open spaces:

1. Restoration of the Intersection Plaza, a civic gathering place at First Street and Livermore Avenue.
2. First Street as a primary open space, through the addition of new public places, new street furnishings, and improved materials.
3. Increased and improved open spaces for gathering and recreation throughout the Downtown, including along the length of First Street.
4. Pedestrian access through improvements to existing streets, dedicated pedestrian zones along new streets, and paths and greenways connecting major public spaces in the Downtown.

d. Key Implementing Actions. The Specific Plan identifies the following key actions for carrying out the Plan:

- Certify this EIR on the City of Livermore Draft General Plan Update and Downtown Specific Plan.
- Adopt findings, mitigation measures, and a monitoring program as required by CEQA.
- Adopt General Plan policies to allow for the establishment of the Downtown Specific Plan, and adopt the Downtown Specific Plan concurrently.
- Revise the City's growth management system to accommodate Downtown Specific Plan development.
- Adopt a Zoning Code amendment to allow the Downtown Specific Plan to be implemented in conformance with the Specific Plan.
- Set up financing mechanisms (assessment districts, impact fee ordinance, etc.).
- Administer the Specific Plan (including review and approval of projects in accordance with the intent and provisions of the Downtown Specific Plan).

E. ANTICIPATED ADOPTION AND IMPLEMENTATION

In considering the Draft General Plan and Downtown Specific Plan, the Livermore Planning Commission and City Council will review this EIR along with the accompanying draft versions of both Plans. The first step will be for the Planning Commission to review the EIR and consider whether to certify it as adequate and complete. Once the Planning Commission provides recommendations on the EIR, the City Council will consider certification of the EIR and adoption of the Draft General Plan and Downtown Specific Plan.

Once the City Council has adopted the Plans, a variety of agencies will be responsible for implementing them through issuance of permits and approvals. Table III-3 lists agencies that are anticipated to have a role in implementing the Plans and their corresponding permits and approvals.

F. INTENDED USES OF THE EIR

In compliance with the California Environmental Quality Act (CEQA), this report describes the environmental consequences of the Draft General Plan and Downtown Specific Plan. This EIR is designed to fully inform City decision-makers, in addition to other responsible agencies, persons, and the general public of the potential environmental effects of the proposed project.

The City of Livermore is the Lead Agency for environmental review of this EIR. A Notice of Preparation (NOP) was submitted to appropriate agencies to identify any issues of concern prior to preparation of the EIR. The NOP was circulated on March 10, 2003, to public agencies and persons considered likely to be interested in the project and its potential impacts. A public notice was also published in a newspaper of general circulation. In addition, all of the topics that are discussed in this EIR were presented to the Steering Committee at a public meeting on July 11, 2002 and July 23, 2002. At the Steering Committee meetings, the public was invited to comment on any topic. The NOP was available for public review on the City's General Plan website.² A copy of the NOP, and all written comments are provided in Appendix A in the Technical Appendices document of this EIR.

The City of Livermore is also responsible for submitting the EIR for review to appropriate public agencies and for submitting the document to the State Clearinghouse. Table III-3 presents a list of agencies that are expected to use this EIR in their decision-making, as well as the associated permits and approvals that may be required during implementation of the Draft General Plan and Downtown Specific Plan.

² City 's General Plan website: www.livermoregeneralplan.org.

Table III-3: Agencies Responsible for Plan-Related Approvals and Regulatory Review

Lead Agency^a	Permit/Approval
City of Livermore	<ul style="list-style-type: none"> • Draft General Plan and Downtown Specific Plan review and adoption. • EIR certification.
Responsible Agencies^b	
California Water Service Company (Cal Water)	<ul style="list-style-type: none"> • Approval of water service Downtown.
Zone 7 Water Agency	<ul style="list-style-type: none"> • Approval of water service, water hookups and review of water needs.
Livermore and Amador Valley Wastewater Management Agency (LAVWMA)	<ul style="list-style-type: none"> • Approval for sewer outfall capacity.
California Department of Transportation (Caltrans)	<ul style="list-style-type: none"> • Approval of plans and encroachment permits for SR 84.
California Regional Water Quality Control Board (RWQCB)	<ul style="list-style-type: none"> • National Pollutant Discharge Elimination System (NPDES) permit for stormwater discharge. • Section 401 Water Quality Certification under the Clean Water Act.
U.S. Army Corps of Engineers (Corps)	<ul style="list-style-type: none"> • Section 10 or Section 404 Permits for impacts on wetlands and waters of the U.S.
Environmental Protection Agency (EPA)	<ul style="list-style-type: none"> • Oversight of Section 404 Program.
Other Agencies	
SBC Pacific Bell (SBC)	<ul style="list-style-type: none"> • Approval of communication line improvements and connection permits.
Pacific Gas & Electric (PG&E)	<ul style="list-style-type: none"> • Approval of natural gas improvements and connection permits.
California Department of Toxic Substances Control (DTSC)	<ul style="list-style-type: none"> • Approval and oversight of hazardous material remediation.
Bay Area Air Quality Management District (BAAQMD)	<ul style="list-style-type: none"> • Review of air quality pollution emissions.
California Department of Fish & Game (CDFG)	<ul style="list-style-type: none"> • State Endangered Species Act requirements, protection measures for other special-status species, and stream permits.
U.S. Fish and Wildlife Service (USFWS)	<ul style="list-style-type: none"> • Biological opinion and incidental take permits, if required, for species listed as Threatened and Endangered under the federal Endangered Species Act.

^a The “Lead Agency” is the public agency that has the principal responsibility for carrying out or approving the project (CEQA Guidelines Section 15367).

^b “Responsible Agencies” are all public agencies other than the Lead Agency that have discretionary approval power over the project (CEQA Guidelines Section 15381).

Source: LSA Associates Inc., 2003.

A. LAND USE

This section evaluates the effects of the proposed project on land use and land use-related public policy. Potential land use and public policy-related impacts that would result from implementation of the proposed project are identified, and mitigation measures are recommended, as appropriate.

1. Setting

The EIR setting information for land use is contained in Volume I: Master Environmental Assessment (MEA). Please refer to Chapter 2, Land Use, of the MEA for a description of existing land uses in Livermore; existing General Plan land use designations; a summary of the development and buildout potential of the City; and regulatory policies that relate to land use in Livermore. Please refer to Chapter 3, Open Space and Agricultural Resources for a description of open space as it relates to the following purposes: the preservation of natural resources; the managed production of resources; outdoor recreation; health and safety; and open space protection and programs.

2. Guiding Documents

This subsection identifies the policies contained in the Draft General Plan and the Downtown Specific Plan that relate specifically to land use and public policy. The policies and actions identified below have been carefully selected so as to include only those that could directly lead to potential impacts as defined by the criteria of significance set forth in subsection 3a below. A complete list of Draft General Plan policies is contained in Appendix B of this EIR. Note that goals, objectives, policies and actions from the South Livermore UGB Initiative or the North Livermore UGB Initiative are identified in *italics* and are noted as initiative language in the Draft General Plan.

a. Draft General Plan. The Draft General Plan proposes a number of changes to existing land use designations in the City of Livermore, including the introduction of three new land use designations (see Chapter III, Project Description, for details). The Draft General Plan Land Use Map is shown in Figure IV.A-1. Draft General Plan policies pertaining to land use are found primarily in the Land Use Element. The following policies, which derive from various other Draft General Plan Elements, are also applicable to land use in the City and are excerpted here to assist the reader's understanding of their land use implications. Because all policies in the Land Use Element relate to land use, these policies are not listed below (but can be referenced in Appendix B).

Community Character Element

CC-1.1.P7 The City shall maintain an area of non-urbanized land surrounding Livermore to serve as a buffer between communities. Uses that are considered compatible with this area include agriculture, grazing, open space, recreation, and reclaimed sand and gravel extraction.

CC-1.1.P8 Open space shall be used to protect and enhance local community character and identity, and to guide the physical shape and direction of urban growth to preserve the rural characteristics of the area.

CC-1.1.P10 Open space shall be used as a buffer between incompatible land uses within urban or essentially undeveloped areas.

CC-4.10.P3 The I-580 Scenic Corridor is defined as the area which is within 3,500 feet on each side of the centerline of I-580, and visible from the I-580 roadway. Development in the I-580 Scenic Corridor must preserve, to the largest degree feasible, the view of the ridgelines as seen from the I-580 Scenic Corridor

roadway. To that end, no development, structures or man-made objects except for berms or planting erected for landscaping purposes may obscure any portion of the ridgeline as seen from the I-580 Scenic Corridor roadway, except as provided in *Section C,I-580 Scenic Corridor Implementation*.

CC-4.12.P1 In both urban and rural areas, normally permitted uses of land should be allowed in scenic routes, except that panoramic views and vistas should be preserved and enhanced through:

- (1) Supplementing zoning regulations with special height, area, and side yard regulations.
- (2) Providing architectural and site design review.
- (3) Prohibiting and removing billboards, signs not relevant to the main use of the property, obtrusive signs, automobile wrecking and junk yards, and similar unsightly development or use of land.

Infrastructure and Public Services Element

INF-4.2.P1 The energy-efficiency of proposed development shall be considered when land use and development review decisions are made

INF-4.2.P4 Require the placement of personal wireless communication facilities in a manner that minimizes the adverse impacts on adjacent land uses. New freestanding facility towers and structures should only be considered when no feasible alternative exists or when visual intrusion would be less than that associated with placement on an existing structure or building.

INF-5.1.P1 Major land use development proposals shall be reviewed for site design criteria and other law enforcement concerns.

INF-10.2-P1 The City shall encourage the siting of child care and other care facilities in areas with compatible land use and character, and shall encourage such facilities to be located near employment centers, homes, schools, community centers, recreation facilities, and transit hubs.

Open Space and Conservation Element

OSC-2.1.P3 The City shall work with Zone 7 to develop a recharge area map to guide future development. Developments proposed in areas identified as “valuable” to the recharge area shall mitigate adverse impacts to the greatest extent possible.

OSC-3.1.P1 Undeveloped lands that are State-designated as Prime Farmland, Farmland of Statewide Importance, and Unique Farmland shall be preserved, to the greatest extent feasible, for open space or agricultural use.

OSC-3.1.P2 The City shall encourage the County to preserve agricultural activities outside the Urban Growth Boundary.

OSC-3.1.P5 The City shall encourage agricultural landowners to enter the agricultural preserve program established under the Land Conservation Act, particularly in areas adjacent to patterns of urbanization encouraged by the General Plan.

OSC-4.1.P1 When considering land use proposals, the City shall take into account potentially available mineral resources on the property or in the vicinity.

Figure IV.A-1: Draft General Plan Land Use Designations

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OSC-6.1.P2 The City shall prohibit the location of sensitive receptors (e.g., residential uses, schools, hospitals) in the vicinity of industries that generate toxic emissions; conversely, prohibit the location of industries that generate toxic emissions in the vicinity of sensitive receptors.

OSC-6.1.P5 The City shall attempt to increase the employment to population ratio to reduce commuting rates and associated vehicle-related pollution emissions. The City shall approve only those development proposals which are designed and located to minimize energy consumption and adverse impacts on air, land and water resources. High-density, transit-oriented developments shall be strongly encouraged and promoted through the use of specific planning, density transfer, the planned development concept, and zoning designations.

OSC-7.1.P2 The City shall approve only those development proposals which are designed and located to minimize energy consumption and adverse impacts on air, land, and water resources.

Noise Element

N-1.1.P1 The City shall emphasize noise considerations when making land use planning decisions.

N-1.1.P3 The City shall maintain a pattern of land uses that separates noise-sensitive land uses from major noise sources to the extent possible.

N-1.1.P4 The City shall use the Land Use Compatibility Guidelines (measured in dBA CNEL or L_{dn}) contained in Table 9-7 in this Element to direct the siting, design, and insulation of new development to reduce exposure to excessive noise. Where warranted, the City shall employ discretionary review of new development to ensure that the community will be protected from excessive noise levels. The City shall evaluate potential noise impacts and recommend mitigation measures through discretionary review procedures such as environmental review, design review, and evaluation of use permits.

N-1.5.P1 The City shall require that industrial and commercial uses be designed and operated so as to avoid the generation of noise effects on surrounding sensitive land uses (e.g., residential, churches, schools, hospitals) from exceeding the following noise levels for exterior environments:

- (a) 55 dBA L_{50} (7:00 a.m. to 10:00 p.m.)
- (b) 45 dBA L_{50} (10:00 p.m. to 7:00 a.m.)

Public Safety Element

PS-1.1.P1 Urban development within earthquake fault zones and areas of high landslide susceptibility, shown in Figure 10-3, shall be conditioned upon the preparation of site-specific geotechnical investigations.

PS-2.1.P6 Development shall only be allowed on lands within the 100-year flood zone, if it will not:

- (a) Create danger to life and property due to increased flood heights or velocities caused by excavation, fill, roads and intended use.
- (b) Create difficult emergency vehicle access in times of flood.
- (c) Create a safety hazard due to the expected heights, velocity, duration, rate of rise and sediment transport of the flood waters expected at the site.
- (d) Create excessive costs in providing governmental services during and after flood conditions, including maintenance and repair of public utilities and facilities.
- (e) Interfere with the existing waterflow capacity of the floodway.
- (f) Substantially increase erosion and/or sedimentation.
- (g) Contribute to the deterioration of any watercourse or the quality of water in any body of water.
- (h) Require storage of material, or any substantial grading or placement of fill.

b. Downtown Specific Plan. As a plan for the physical development of downtown Livermore, the Downtown Specific Plan is directly related to land use decisions in Livermore. An illustration of one way in which the Downtown could develop under the plan is shown in Figure III-5 in the Project Description Chapter of this EIR. The following strategies contained in Chapter 3, Revitalization Strategy, of the Downtown Specific Plan relate directly to land use:

- 1b. Designate a Downtown Core within the Specific Plan Area as the location for Downtown's retail activity. Size this Core area larger than necessary to support the potential demand based on its likely market share in order to accommodate growth as the number of people living Downtown increases. Limit ground floor uses in this Core to those that can be counted on to generate the most pedestrian activity, including retail shops, restaurants, entertainment venues, galleries, personal and business services.
- 1c. Consider limiting the development of uses that are competitive with Downtown (i.e. specialty retail, restaurant, entertainment and services) *outside* of the Specific Plan Area. Policies include directing personal or business services, video rental or family restaurants to the Downtown and to other neighborhood centers, and restricting these uses within regional centers.
- 2a. Revise land use policies to allow housing at a range of types and densities everywhere except on the ground level in the Downtown Core.
- 2b. Encourage the construction of housing above storefronts in the Downtown Core by requiring new buildings to be mixed-use (defined for the Core as the combination of retail with residential or office uses in the same building).
- 2c. Identify opportunity sites that provide immediate development prospects for new housing and that offer the potential to deliver a significant number of new units. Examples include the former Lucky's site in the heart of Downtown, the bowling alley site along Railroad Avenue and several vacant, formerly commercial parcels located to the east of Downtown.
4. Focus immediate attention on opportunity sites capable of delivering dramatic short-term beneficial change. Key catalyst projects include:
 - Catalyst Project #1: Livermore Valley Center (LVC) – Proceed with the development of a conference and cultural complex including retail, office and a local theater.
 - Catalyst Project #2: The former Lucky's Site (bounded by L Street, Railroad and South Livermore Avenues) – Work with developers to create a mixed-use project including a regional destination Design Center and a vibrant housing development. Consider the inclusion of art components such as live-work units and an artists workshop/center.
 - Catalyst Project #3: Groth Brothers Site (northwest corner of First and L Streets) – Consider possible entertainment uses (e.g. movie theatre) that can be a catalyst/anchor for complementary uses, including restaurants, retail or second-story office space.
- 5b. Promote the establishment of an artist community in the District. "Kick-start" the Area District with artist live-work-sell lofts.
- 8b. Provide a central public open space on the southwest corner of the intersection (of First Street and Livermore Avenue), which has historically served as Downtown's crossroads and the City's most visible "center."

- 12a. Consider the possibility of locating new City facilities (such as the new Council Chambers) in the heart of Downtown.
- 12b. Locate other quasi-civic facilities Downtown, such as cooperative facilities for the production of arts, or cultural venues such as cinemas, theaters and performing arts centers.
- 12c. Support the development of a Downtown hotel. Such a facility would serve as a supportive public use that can accommodate tourists and people on business, two market segments that will grow as Downtown revitalizes.
- 13a. Identify opportunity sites for office development. Encourage office uses above retail in the Core to maximize land use and value, and to bring more people to Downtown Livermore on a daily basis.

3. Impacts and Mitigation Measures

This subsection analyzes impacts related to land use and land use-related public policy that could result from implementation of the proposed project. The subsection begins with the criteria of significance, which establish the thresholds for determining whether an impact is significant. The latter part of this subsection presents the impacts associated with the proposed project, and recommends mitigation measures, as appropriate. The project's consistency with regional policies related to technical environmental topics (e.g., air quality, transportation, and noise) are discussed in those topical sections of this EIR.

a. Criteria of Significance. Implementation of the proposed project would have a significant effect on land use if it would:

- Physically divide an established community;
- Introduce new land uses that would conflict with established uses within the vicinity of the Planning Area;
- Conflict with applicable land use plans or policies adopted by agencies with jurisdiction over the project;
- Convert Prime Farmland, Farmland of Statewide Importance, or Unique Farmland, as shown on maps prepared pursuant the Farmland Mapping and Monitoring Program of the California Department of Conservation, to non-agricultural use;
- Conflict with existing zoning for agricultural use or a Williamson Act Contract; or
- Involve other changes in the existing environment which, due their location or nature, could result in the conversion of farmland to non-agricultural use.

b. Impacts and Mitigation Measures of the Draft General Plan. The following discussion describes land use impacts associated with implementation of the Draft General Plan.

(1) Less-than-Significant Impacts of the Draft General Plan. Following is a summary of the less-than-significant land use impacts that would result from implementation of the Draft General Plan.

Community Integrity. The physical division of an established community typically refers to the construction of a physical feature (such as an interstate highway or railroad tracks) or removal of a

means of access (such as a local road or bridge) that impairs mobility within an existing community, or between a community and outlying areas. For instance, the construction of an interstate highway through an existing community may make it harder for people to travel from one side of the community to another; similarly, such construction may also impair the ability of community members to travel easily to areas outside of the community.

Implementation of the Draft General Plan would result in land use designation changes in areas of Livermore that have been designated as “change areas.” “Change areas” are described in more detail in Chapter III, Project Description, and identified on Figure III-2. These change areas generally consist of underutilized properties that are anticipated to be able to withstand, and to benefit from, different types and more intense scales of development. The Draft General Plan does not propose the construction of large physical structures or features, such as major roadways, that would create physical divisions within or between existing communities. In addition, implementation of the Draft General Plan would not result in the large-scale removal of roads or other means of access. The development of infill and other vacant parcels, including development in the “change areas,” tend to connect neighborhoods, and encourage the movement of people throughout the City.

New and Established Land Uses. Implementation of the Draft General Plan would result in the juxtaposition of a variety of land uses, including commercial, residential, light industrial, and agricultural uses. In addition, implementation of the Draft General Plan would introduce several new land use designations, including low-, medium, and high-density mixed use designations, that would support an integrated mixture of land uses. Areas with a high intensity of use (such as Urban High Residential, Service Commercial, and Neighborhood Mixed Use High Density designations) would generally be located near major roadways (e.g., I-580) and future transit nodes (e.g., BART and ACE stations). Areas in the vicinity of major transportation access points are generally considered to be appropriate places to develop high-intensity uses without infringing on existing uses. Concentrating traffic-generating uses near transportation nodes minimizes vehicular travel through established neighborhoods with minor roadways, and reduces the environmental impact of new projects on established areas.

The juxtaposition of land uses in and of itself does not constitute an environmental impact. Many successful and vibrant urban areas contain a mixture of land uses in close proximity to one another. The Draft General Plan contains policies to ensure that new development is consistent with established uses. One such representative policy is Policy LU-1.4.P5, which requires that a planned development be prepared for all Neighborhood Commercial Areas. Each planned development is required to include an analysis of its effects on existing land uses. In addition, Draft General Plan policy LU-3.1.P1 would require the preparation and approval of a specific plan for the Greenville BART TOD. The specific plan would include mitigation measures that would reduce the land use impacts of individual projects to a less-than-significant level.

Land Use Plans and Policies. Only a few portions of the Draft General Plan area are located outside of the Livermore City limits, and are under the jurisdiction of Alameda County. These areas are within the Livermore Urban Growth Boundary (UGB) and include the land north and east of the proposed Greenville BART Transit Oriented Development. In addition, there is an area located north of I-580 and west of Springtown Boulevard, which is designated for Limited Agriculture with a Community Facilities High School designation in the Draft General Plan. This land would be annexed to the City prior to development. Alameda County’s East County Area Plan establishes

County policy that supports the eventual City annexation or incorporation of all existing and proposed urban development. Therefore, implementation of the Draft General Plan would not conflict with land use plans adopted by the County.

Section E of the Draft General Plan Land Use Element contains goals, objectives, policies, and actions to promote the preservation of the rural landscape and agricultural uses in the South Livermore Valley. In addition, these regulations encourage collaboration with the County to create a permanent open space boundary around the southern portion of the City. The Draft General Plan is consistent with Alameda County's South Livermore Valley Specific Plan, which seeks to preserve natural and agricultural resources within and adjacent to the south side of Livermore.

Farmland. The Draft General Plan contains numerous policies that would protect agricultural land from development. In particular, Open Space and Conservation Element policies OSC-3.1.P1, OSC-3.1.P2, and OSC-3.1.P5 would ensure that prime, undeveloped agricultural land is preserved to the greatest extent feasible, that agricultural lands are preserved outside the Urban Growth Boundary of the City, and that agricultural land is protected by conservation easements.

The Livermore City limits contain undeveloped lands classified as Prime Farmland, Farmland of Statewide Importance, or Unique Farmland. Most Prime Farmland in Livermore is located southwest of the national laboratories and west of the Airport. Policy OSC-3.1.P1 would protect these lands from development by preserving them for open space or agricultural use to the greatest extent feasible. The Draft General Plan therefore would disallow or highly discourage conversion of State-designated farmland to non-agricultural use.

Policy LU-16.1.P2 would "strongly discourage the non-renewal or early termination of Williamson Act contracts." Similarly, policy LU-19.1.P4 would prohibit the development of Williamson Act contract lands in South Livermore Valley unless: 1) the development proponent can prove that cancellation of the contract will result in a more compact development pattern than development of proximate non-contracted lands, and 2) an area equal to or greater in area than the parcel which is to be developed is placed under a permanent agricultural easement. Policy OSC-3.1.P5 encourages agricultural land owners to protect their land under Williamson Act contracts through the Land Conservation Act. Therefore, implementation of the Draft General Plan would not conflict with existing zoning for agricultural use or a Williamson Act contract.

In addition, the Draft General Plan therefore would not extend development beyond the City's UGB (see objectives LU-5.1 and LU-18.1), and so would not result in the conversion of farmland in the vicinity of the City to non-agricultural use outside the UGB.

(2) Significant Impacts of the Draft General Plan. No significant land use impacts would result from implementation of the Draft General Plan.

c. Impacts and Mitigation Measures of the Downtown Specific Plan. The following discussion describes land use impacts associated with implementation of the Downtown Specific Plan.

(1) Less-than-Significant Impacts of the Downtown Specific Plan. Following is a summary of the less-than-significant land use impacts that would result from implementation of the Downtown Specific Plan.

Community Integrity. Downtown Livermore is currently characterized by a collection of retail and residential uses. Many of the retail uses are underutilized, and Downtown no longer serves as the economic center of the City. The Downtown Specific Plan would intensify retail and residential uses, increase Downtown cultural amenities and open space, improve access, and enhance the overall visual quality of the area. As part of Downtown Specific Plan implementation, vacant lots would be developed and linked into the urban fabric of Downtown. In addition, pedestrian and bike access through Downtown would be improved through sidewalk improvements, and the development of striped bicycle lanes and signed bike routes. These improvements would serve to increase pedestrian mobility within Downtown and connect existing uses. The Downtown Specific Plan would not result in the removal of roadways, or the construction of major roadways or other physical features that would physically divide an established community.

New and Established Land Uses. The Downtown Specific Plan proposes to intensify uses that already exist in Downtown Livermore. Additional retail uses would be developed near the center of Downtown, and housing stock would be increased through development of infill parcels, redevelopment sites, and mixed residential/commercial uses. The Downtown Specific Plan proposes to develop three “catalyst projects:” the Livermore Valley Center; a mixed-use project on the former Lucky’s site; and an entertainment facility at the intersection of First Street and L Street. The development of mixed uses, that would be encouraged by Downtown Specific Plan strategies 2a, 2b, and 13a could make the Downtown more economically viable and increase quality of life for existing residents and tenants. The new uses proposed for Downtown would be similar to those uses already located Downtown and would not result in substantial adverse land use conflicts with existing uses.

Land Use Plans and Policies. The Downtown Specific Plan supercedes and replaces the City of Livermore’s Redevelopment Strategy and Urban Design Plan. The Urban Design Plan does list the Downtown Specific Plan as one of the regulatory programs that would allow the City to implement Downtown improvement actions. As such, the Downtown Specific Plan is anticipated by the Redevelopment Strategy and Urban Design Plan. Both documents seek to revitalize Downtown Livermore through the implementation of a comprehensive revitalization program.

Farmland. Downtown Livermore is a developed area, with no land in agricultural production. The entire Downtown is characterized as urban or built-up land by the State Department of Conservation. No land in Downtown Livermore is zoned for agricultural uses or under Williamson Act Contract. Therefore, implementation of the Downtown Specific Plan would not convert farmland to non-agricultural use, or conflict with existing agricultural zoning or a Williamson Act Contract. In fact, it could be argued that the intensification of Downtown Livermore would have a positive effect on farmland resources by providing development opportunities other than at the City’s edge. Implementation of the Downtown Specific Plan would not extend infrastructure to an undeveloped area or otherwise indirectly result in the development of farmland.

(2) Significant Impacts of the Downtown Specific Plan. Implementation of the Downtown Specific Plan would not result in significant land use impacts.

B. POPULATION, EMPLOYMENT, AND HOUSING

This section evaluates potential impacts related to changes in population, employment, and housing resulting from implementation of the Draft General Plan and the Downtown Specific Plan. Mitigation measures are proposed as necessary

1. Setting

The EIR setting information for population, employment, and housing is contained in Volume I: Master Environmental Assessment (MEA). Please refer to Chapter 4, Demographic, Economic, and Market Conditions in the MEA for a complete discussion of the existing population, household size, number of jobs, available housing, economic trends and a summary of market conditions within the City.

2. Guiding Documents

This section identifies the policies contained in the Draft General Plan and the Downtown Specific Plan pertaining to population, employment, and housing. The policies and actions identified below have been carefully selected so as to include only those relate to potential impacts as defined by the criteria of significance set forth in subsection 3a below. A complete list of Draft General Plan policies is contained in Appendix B of this EIR. Note that goals, objectives, policies and actions from the South Livermore UGB Initiative or the North Livermore UGB Initiative are identified in *italics* and are noted as initiative language in the Draft General Plan.

a. Draft General Plan. As previously noted, the Housing Element for the City of Livermore is currently being updated and evaluated under a separate process. This impact assessment evaluates the policies pertaining to population, employment, and housing in the following Draft General Plan elements: Land Use; Economic Development; Infrastructure and Public Services, and Open Space and Conservation. Relevant policies are listed below.

Land Use Element

LU-1.1.P1 Except where special conditions warrant, the City shall allow development only on those properties immediately adjacent to established urban areas, in accordance with the North Livermore Urban Growth Boundary Initiative.

LU-1.1.P2 Residential development shall be limited to those areas within the UGB.

LU-1.1.P4 The City shall encourage the use of the planned development concept where possible to decrease construction costs, provide open space, increase the variety of housing types and provide integrated very low-, low-, and moderate-income housing.

LU-2.1.P1 The City shall ensure that the management of community growth will assure that the natural amenities and environmental qualities which are among its greatest assets can be successfully improved, preserved, and enhanced.

LU-2.1.P2 The City shall strive to achieve a balanced relationship between residential development and commercial and industrial development to provide local employment and to realize an adequate tax base.

LU-2.1.P3 Future growth shall not exceed the community's capability to provide services. School classroom facilities, sewage treatment capacity, treated domestic water, public parks and recreation, and public safety services shall be the principal factors considered.

LU-2.1.P5 The City shall establish a growth range which supports the goals and policies for well-managed growth. The Planning Commission shall develop general policy recommendations, and the Growth Review Committee, appointed by the City Council, shall develop growth range recommendations for well-managed growth. Recommendations shall take into consideration the following factors:

- (a) State and federal policies and standards relating to the environment, including air quality;
- (b) The need for the City to accommodate a reasonable share of regional population growth with regards to Association of Bay Area Governments (ABAG) population projections;
- (c) Energy conservation;
- (d) Historical growth patterns relative to the Bay Area and Alameda County;
- (e) The need to encourage infill development in the City;
- (f) The need to provide very-low and low-income housing consistent with ABAG's housing needs determination;
- (g) The need to support viable local employment and commerce opportunities;
- (h) The need for well-designed, high quality housing;
- (i) The need to ensure that public facilities and services can adequately support future growth; and
- (j) The need to provide a jobs/housing balance, as well as a jobs/housing match.

LU-2.1.P6 It shall be the residential growth policy of the City to plan for an average residential population growth fixed range between 140 and 700 dwelling units (based on 0.5 to 2.5 percent of 2002 housing units). The computation of the growth range shall not include small projects of four (4) units or less, which are exempt from growth management. The City may guarantee yearly housing allocations through approved specific plans to encourage and support residential development within the specific plan planning area. In this circumstance, the City-wide yearly housing allocation shall not be less than the number of dwelling units guaranteed under approved specific plans.

LU-2.1.P9 To promote development and redevelopment in the Downtown, 200 units per year shall be authorized within the Downtown Area, for a maximum of 2,000 units for the period beginning January 1, 2004 and ending December 31, 2013 (allocation years 2005-2014). For this period of time, Downtown Area units are not required to participate in the competitive review process. Please refer to the Downtown Specific Plan for the implementation details of this policy.

LU-3.1.P1 Prior to or concurrent with approval of any development applications, a specific plan shall be prepared and approved for the Greenville BART TOD. The specific plan shall provide detailed guidance for project-related land use, provision and financing of public services and facilities, open space preservation, visual resources, and recreational amenities, and shall include mitigation measures to reduce the impacts of individual projects on existing neighborhoods and environmental resources.

LU-3.1.P2 Development of the BART TOD shall be contingent upon BART establishing a firm timeframe and funded extension of BART services to the Greenville area.

LU-9.1.P1 The City shall have a Transferable Development Credits Program for North Livermore to aid in accomplishing the purpose of this measure. Property owners may choose to participate in the Program, even though their property has not been annexed to Livermore. It allows participating owners to share in development values in Livermore, given the special restrictions on land use in North Livermore and the added development in Livermore permitted under the Program.

LU-11.1.P3 If State requirements make it necessary to go beyond the Urban Growth Boundary to provide for housing, the voters of the City may approve an extension of the Boundary. If necessary, the City Council also may approve housing beyond the Boundary, provided:

- (a) There is no land within the Boundary to meet a State requirement through new development, more intensive development, or redevelopment;*
- (b) No more land is used outside the Boundary than is necessary for the housing required by State law;*
- (c) The area is adjacent to the Boundary, or as near thereto as possible*
- (d) There will be adequate public facilities and services for the housing; and*
- (e) At least 35 percent of the housing provided shall be for moderate, low and very low income households as defined by State law and at least 20 percent shall be for low and very low income households.*

Open Space and Conservation

OSC-6.1.P5 The City shall attempt to increase the employment to population ratio to reduce commuting rates and associated vehicle-related pollution emissions. The City shall approve only those development proposals which are designed and located to minimize energy consumption and adverse impacts on air, land and water resources. High-density, transit-oriented developments shall be strongly encouraged and promoted through the use of specific planning, density transfer, the planned development concept, and zoning designations.

Economic Development Element

ED-1.1.P3 Initiate and implement an economic development strategy, utilizing stakeholders such as the laboratories, business community, developers, and educational institutions to create attraction and retention strategies for all of Livermore's economic centers.

ED-1.1.A3 Develop an economic development strategy that identifies a desirable mix of businesses that will attract high wage jobs and enhance tax revenues on a continuing basis.

ED-1.1.A4 Work with businesses and employment recruiters to establish a process to employ Livermore and other local residents for Livermore-based employment opportunities.

ED-1.1.A5 Encourage and actively attract businesses in key industries that build upon Livermore's competitive advantages and offer high wage jobs.

ED-1.3.P1 Work with the Laboratories to develop training programs which will create the next generation of technologically-advanced workers.

ED-1.3.P2 Work with the Laboratories to locate private companies associated with the research at the Laboratories in Livermore.

ED-1.3.P3 Work with the Laboratories to locate new, spin-off companies and technologies in Livermore.

ED-2.1.P2 Support and encourage businesses that provide jobs that would have a positive effect on Livermore's job/housing match.

ED-2.1.P3 Maintain a range of quality housing options serving different lifestyle needs, income levels, and household composition, with increased opportunities for all income levels to achieve homeownership.

ED-2.2.P1 Collaborate with key stakeholders such as the national laboratories and Las Positas Community College to develop educational and training programs targeting the needs of technologically advanced companies, creating future opportunities for the school-aged and young adult population in Livermore.

Infrastructure and Public Services Element

INF-1.2.P1 The potable water distribution and storage system shall be sized to serve development anticipated under the General Plan and shall not provide for additional growth and development beyond that anticipated under the General Plan.

INF-1.2.P2 The approval of new development shall be conditional on the availability of sufficient water supply, storage and pressure requirements from the City, California Water Service Company and Zone 7 for the project as applicable.

INF-2.1.P3 The approval of new development shall be conditional on the availability of adequate long-term capacity of wastewater treatment, conveyance and disposal sufficient to service the proposed development.

INF-3.1.P1 Design local storm drainage improvements to carry appropriate design-year flows resulting from build out of the General Plan.

INF-4.1.P1 The City shall ensure that utilities, including electricity, natural gas, telecommunications, and cable, are available or can be provided to serve the projected population within the City in a manner which is fiscally and environmentally responsible, aesthetically acceptable to the community, and safe for residents. However, the ultimate responsibility for ensuring that the utilities are available to support new development rests on the sponsor of proposed projects.

b. Downtown Specific Plan. The provision of housing in the Downtown and the establishment of a larger population to assist in the revitalization effort is a major objective in the Downtown Specific Plan. The second guiding principle of the Specific Plan is that housing should be well-distributed throughout the Downtown area. The Downtown Specific Plan also contains the following strategies and policies relating to the provision of housing.

Revitalization Strategy 2 of the Downtown Specific Plan

Strategy 2 – Maximize investment in housing construction throughout the Specific Plan area.

- a. Revise land use policies to allow housing at a range of types and densities everywhere except on the ground level in the Downtown Core.
- b. Encourage the construction of housing above storefronts in the Downtown Core by requiring new buildings to be mixed-use (defined for the Core as the combination of retail with residential or office uses in the same building).
- c. Identify opportunity sites that provide immediate development prospects for new housing and that offer the potential to deliver a significant number of new units. Examples include the former Lucky's site in the heart of Downtown, the bowling alley site along Railroad Avenue and several vacant, formerly commercial parcels located to the east of Downtown.
- d. Attract potential Downtown residents with transit opportunities that enable them to travel easily and conveniently to job centers in the region.

Growth Management Policy of the Downtown Specific Plan

Growth management policies in the Draft General Plan establish a minimum growth rate of 1.5 percent throughout the City. The Housing Implementation Program (HIP) sets aside a maximum number of units to be

developed each year throughout the City. To encourage infill growth in the already developed Downtown area rather than greenfield development in undeveloped areas of the City, and to establish the Downtown area as the most intensely developed part of the City, the Growth Management System for the City will be amended to exempt the Downtown from the HIP under certain conditions. Residential growth within the Specific Plan area shall proceed in accordance with the following procedures:

1. Residential development in the Downtown Area shall be exempt from the HIP process if it is demonstrated that its public infrastructure and service needs can be adequately met. Public infrastructure and service needs include, but are not limited to, water, sewer, roads, schools and parks. Meeting this requirement can be achieved through a combination of payment of City fees, on- and off-site improvements, and appropriate agreements with the City and other public agencies.
2. Residential dwelling units will be “allocated” when a Final Subdivision Map is approved by the City Council, and the City determines adequate infrastructure (including but not limited to sewer, water, and circulation) is either available to serve the project or will be constructed as part of the project. If no Final Map is required, dwelling units will be allocated when the required land use entitlement is approved by the City (e.g., Design Review, Site Plan Approval, Conditional Use Permit, etc).
3. An average of up to 200 dwelling units per year can be *allocated* beginning January 1, 2004 for a period of ten years (2005-2014) ending on December 31, 2013. A maximum of 2,000 dwelling units may be allocated during this ten-year period. Residential projects, or projects with a residential component, in the Downtown Specific Plan are not required to participate in the City’s annual, competitive Housing Implementation Program (HIP) for this first ten-year cycle but will be counted as part of the City’s overall growth rate.
4. Beginning January 1, 2014, there are no annual average dwelling unit caps. The number of dwelling units allocated will be subject to the City’s adopted growth rate and the Downtown Specific Plan standards. Unused dwelling units during the initial ten-year cycle ending in 2013 may be carried over into subsequent years. As of January 1, 2014, Downtown Specific Plan dwelling units will be required to compete in a City HIP, or subsequent replacement program.
5. No dwelling unit allocations from elsewhere in the City may be used within the Downtown Specific Plan area.
6. Allocations are awarded on a first-come, first serve basis as described in paragraph 1 above for the first ten years beginning January 1, 2004 and ending on December 31, 2013. After this initial ten year period, projects will be subject to the HIP (or subsequent replacement program) process again.

3. Impacts and Mitigation Measures

The following section focuses on the potential adverse impacts related to *population, employment and housing* of the proposed project. It begins by establishing thresholds of significance for impacts, and then evaluates the two elements of the proposed project: the Draft General Plan and the Downtown Specific Plan. Where potentially significant impacts of the proposed project are found, mitigation measures are recommended.

a. Criteria of Significance. Implementation of the Livermore Draft General Plan and Downtown Specific Plan would have significant impacts pertaining to population, employment, and housing if the project would:

- Induce substantial, unanticipated population growth either directly (by proposing new homes and businesses) or indirectly (through extension of roads or other infrastructure);

- Substantially alter the location, distribution, or density of the population of the City;
- Displace existing housing, especially affordable housing;
- Hinder the accomplishment of projected “fair share” housing needs;
- Create a substantial demand for additional housing; or
- Create a substantial jobs/housing imbalance.

b. Impacts and Mitigation Measures of the Draft General Plan. This section evaluates potential impacts pertaining to population, employment, and housing associated with the Draft General Plan and identifies mitigation measures to address these impacts, as necessary.

(1) Less-than-Significant Impacts of the Draft General Plan. Following is a summary of the less-than-significant impacts that would result from implementation of the Draft General Plan.

Population Growth. The Draft General Plan is estimated to result in a citywide increase in population of 28,377 persons, from 76,700 to 105,077 at build out, which is projected to occur by 2025. This buildout population reflects a 38 percent increase in population by 2025. The Draft General Plan contains growth management policies LU-2.1.P1 through P15 to ensure that substantial population growth is not induced. Policies LU-2.1.P5, LU-3.1.P2, INF-1.2.P1, INF-1.2.P2, INF-2.1.P3, INF-3.1.P1, and INF-4.1.P1 allow for the improvement and expansion of utilities and services only to a degree necessary to serve planned growth identified in the Draft General Plan and that the extension of infrastructure would not indirectly induce unanticipated population growth.

The population growth projected in the Draft General Plan is consistent with the Association of Bay Area Governments (ABAG) projections, which state that Livermore’s population is projected to grow 37.3 percent between 2000 and 2020.¹ Therefore, the projected population growth associated with the implementation of the Draft General Plan would not result in the inducement of substantial unexpected population growth.

Policies under objective LU-2.1 are designed to increase the provision of housing and meet the City’s fair share housing allocations, and may result in an increase in density in some areas of the City. Development of residential uses and high density mixed uses in the vicinity of the proposed Greenville BART station would result in an increase in the density of population in the northeastern portion of the City. However, the increase in population in this area (estimated to total approximately 10,200 persons) would not be considered substantial because the development is adjacent to existing development, within the established Urban Growth Boundary (UGB), and is necessary to support the establishment of a BART station (see policy CIR-3.1.A3 and CIR-3.1.A5). As stated in policies LU-1.1.P1 and LU-1.1.P2 it is the desire of the City to concentrate new development within the UGB, and, therefore, an increase in density within the UGB would be anticipated. The Draft General Plan Land Use Element contains policies that plan for orderly development within the UGB. Increased density within the UGB is considered a beneficial and desired effect of establishing the UGB, and anticipated benefits that could result include: conserving open space outside the UGB by limiting urban sprawl; increasing the efficiency of public transit thereby limiting traffic and improving air

¹ Association of Bay Area Governments. 2002. *Projections 2002*. Oakland, CA.

quality; utilizing undeveloped land more efficiently; and minimizing the costs and impacts associated with the expansion of public services, utilities and infrastructure.

Housing. The number of housing units within the City of Livermore is projected to increase by 11,861 units from the existing 28,300 units to 40,160 units at Draft General Plan build out in 2025. The City has identified (see policy LU-2.1.P6) an annual average growth range between 140 and 700 dwelling units per year, with exceptions for conditions including, low income housing, small projects and approved specific plans. The projected increase in housing units would be accommodated by the annual growth range identified in the Draft General Plan. The Regional Housing Needs Determination was prepared by ABAG pursuant to California Code Section 65584. Implementation of Draft General Plan policies would not result in the displacement of housing or hinder the accomplishment of the City’s regional housing needs allocation of 875 very low, 482 low, 1,403 moderate, and 2,347 units to above moderate-income needed between 1999 and 2006. Please refer to Appendix B: Issues Paper: Jobs/Housing Match and Citywide Real Estate Market prepared by BAE in Volume I: Master Environmental Assessment, 2003 for additional information on housing needs goals and jobs/housing match analysis. Policies LU-1.1.P4 and LU-2.1.P5, P7, and P10 are designed to assist in meeting Livermore’s projected regional housing needs. In addition, the Draft General Plan provides policy ED-2.1.P3 that would ensure a range of quality housing options to serve different lifestyles, incomes and households while increasing homeownership opportunities for all income levels. Implementation of the Draft General Plan would not create a substantial demand for additional housing. Similarly, the Draft General Plan would not displace existing housing, especially affordable housing, either through policy change or revisions in land use designations.

Jobs/Housing Balance. Implementation of the Draft General Plan is projected to result in 46,460 new jobs which would increase the total number of jobs from 41,500 in 2003 to 87,960 by the year 2025, as shown in Table IV.B-1. The comparison of 87,960 jobs to 40,160 occupied housing units and 60,240 employed residents translates to a jobs/housing ratio of 2.2 and a jobs/employed residents ratio of 1.5.² A 1.1 ratio of jobs to employed residents is considered ideal for a balanced community, since it means that there are enough jobs for the community’s residents, and the need for in-and-out-commuting is minimized. However, when comparing jobs to housing units, a ratio of 1 job to 1.5 housing units is considered desirable, since not every individual living in every household is expected to work. The 2003 jobs/housing ratio is 1.6 and the jobs/employed residents ratio is 1.1. The 1976 General Plan would generate a jobs/housing ratio of 2.8 and a jobs/employed residents ratio of 1.9.

Table IV.B-1: Jobs to Housing Comparison

	2003	2025
Jobs	41,500	87,960
Housing Units	28,300	40,160
Employed Residents	~ 42,450	60,240
Jobs/Housing	1.6	2.2
Jobs/Employed Residents	1.1	1.5

Source: LSA Associates, Inc., 2003.

Livermore has a surplus of vacant land currently designated for office and industrial uses that contributes to the projected jobs to housing imbalance. As shown on Table III-1, the Draft General Plan addressed the need to increase the amount of land designated for housing by redesignating industrial land for residential uses in the East Side transitional area (where land use compatibility issues would be minimal), redesignating dispersed commercial/industrial sites for residential and mixed-uses, increasing residential densities in the Downtown, and identifying high density housing

² The number of employed residents is based on an estimate of 1.5 employed residents per household.

for the Greenville BART Transit Oriented Development area. To assist in drawing the types of jobs that would match the existing housing stock, the Draft General Plan provides actions ED-1.1.A3 and A5 which promote the types of companies that would require a skilled, technologically-advanced workforce. Policies ED-2.1.P2 and P3 would support businesses that have a positive effect on Livermore's jobs/housing match. Therefore, rather than worsening a substantial jobs/housing imbalance (as would occur under implementation of the 1976 General Plan), the Draft General Plan contains policies that attempt to provide more opportunities for residential development and a more balanced jobs/housing ratio.

(3) Significant Impacts of the Draft General Plan. No significant impacts related to population, housing, or employment were identified.

c. Impacts and Mitigation Measures of the Downtown Specific Plan. The following discussion describes environmental impacts associated with implementation of the Downtown Specific Plan.

(1) Less-than-Significant Impacts. Implementation of the policies and strategies in the Downtown Specific Plan that encourage more housing within the Downtown may also result in an increase in the density of housing in the Downtown. However, providing additional housing in the Downtown would be considered beneficial to the revitalization effort, would meet a major objective of the Downtown Specific Plan, would assist the City in providing its "fair share" of the regional housing needs, and would assist in achieving a better jobs/housing balance. The increase in housing and population in the Downtown would not be expected to result in significant adverse physical impacts. Implementation of the Growth Management Policy of the Downtown Specific Plan and policy LU-2.1.P9 of the Draft General Plan would result in a beneficial effect on the provision of low-income housing (which is exempt from the competitive housing allocation process) and facilitate provision of a jobs/housing balance in the City. The policies and programs of the Downtown Specific Plan would not displace existing housing or hinder the accomplishment of "fair share" housing.

(2) Potentially Significant Impacts. No significant adverse population, housing or employment impacts would result from the Downtown Specific Plan.

C. TRAFFIC AND CIRCULATION

This section evaluates potential traffic and circulation impacts resulting from implementation of the Draft General Plan and Downtown Specific Plan. The evaluation of environmental effects presented in this section focuses on potential traffic and circulation impacts associated with added vehicle trips, additional delay per vehicle, added transit trips, parking, bicycle travel and other related circulation impacts caused by development activity and buildout of the Draft General Plan and Specific Plan. Mitigation measures are identified where necessary.

1. Setting

The following discussion utilizes setting information contained in Volume I: Master Environmental Assessment (MEA) on traffic, circulation and parking. Please refer to Chapter 5, Transportation, of the MEA for background and existing setting information on streets and highways; traffic volumes and level of service; transit services; bikeways and trails; and the regulatory and transportation planning context for the City of Livermore.

2. Guiding Documents

This section identifies the policies contained in the Draft General Plan and the Downtown Specific Plan that relate specifically to transportation, circulation and parking. The policies and actions identified below have been carefully selected so as to include only those that could directly lead to potential impacts (or could mitigate potential impacts) as defined by the criteria of significance set forth in subsection 3a below. A complete list of Draft General Plan policies is contained in Appendix B of this EIR. Note that goals, objectives, policies and actions from the South Livermore UGB Initiative or the North Livermore UGB Initiative are identified in *italics* and are noted as initiative language in the Draft General Plan.

a. Draft General Plan. The Draft General Plan proposes some changes to the existing transportation system including changes to roadway functional classifications, designated truck routes and bicycle facilities (see Chapter III, Project Description for details). Figures IV.C-1, IV.C-2 and IV.C-3 illustrate key elements of the Draft General Plan, including the proposed functional classification system, the proposed bikeways and trails system, and the proposed truck route system. Draft General Plan policies pertaining to transportation issues are found primarily in the Circulation Element. Because all policies in the Circulation Element relate to transportation, in the interest of brevity, not all of them are listed. Listed below are policies that relate most directly to mitigation of potential future transportation system deficiencies. Those policies, when implemented, will help to mitigate the impacts of growth in and around the City, and prevent intersections and roadways from falling below the City's thresholds for acceptable level of service. The important policies and actions in the areas of transportation system mitigation, mitigation of regional cut-through traffic, bicycle circulation, pedestrian circulation, transit services and goods movement are listed. Additionally, policies that derive from the Land Use Element, but are applicable to transportation issues, are excerpted here to assist the reader's understanding of circulation issues.

Roadway System Improvements

CIR-1.1.P1 The City shall consider the impacts to the existing and proposed roadway system when considering changes in land use.

CIR-1.1.P2 Development projects shall be reviewed for impacts on the adjacent circulation system. Identified impacts shall be addressed and mitigated to the greatest extent feasible.

CIR-1.1.P4 Mixed-use development shall be located near transit nodes and adjacent to residential neighborhoods, as identified in the Land Use Element.

CIR-2.1.P1 The City shall maximize the carrying capacity of arterial roadways by providing a well-coordinated traffic/signal control system, controlling the number of intersections and driveways, limiting residential access points, and requiring sufficient off-street parking.

CIR-2.1.P3 The City shall pursue and protect adequate right-of-way to accommodate future roadway system improvements.

CIR-2.1.A2 Construct missing roadway links to complete the roadway system designated in the Circulation Element when warranted by roadway operating conditions.

Cut-Through Traffic

CIR-1.2.P1 The City shall recognize that increasing capacity on major streets leading to I-580 could increase regional cut-through traffic and shall maintain a balance between serving local and regional needs.

CIR-1.2.P2 The City shall not base roadway system improvements solely on the local effects of regional cut-through traffic. Other issues including facility improvement costs and desirability shall be determinants to improving the intracity roadway network.

CIR-1.3.P1 The City shall provide adequate capacity to the extent possible on major and collector streets to prevent traffic diversion of local cut-through onto neighborhood streets.

Alternative Travel Modes

CIR-3.1.A1 Promote increased local transit ridership as an alternative to driving by supporting LAVTA services.

CIR-3.1.A2 Preserve options for future transit use when designing improvements for roadways and other land use approvals.

CIR-3.1.A3 Advocate the extension of BART to Greenville Road in the I-580 median as the City's preference.

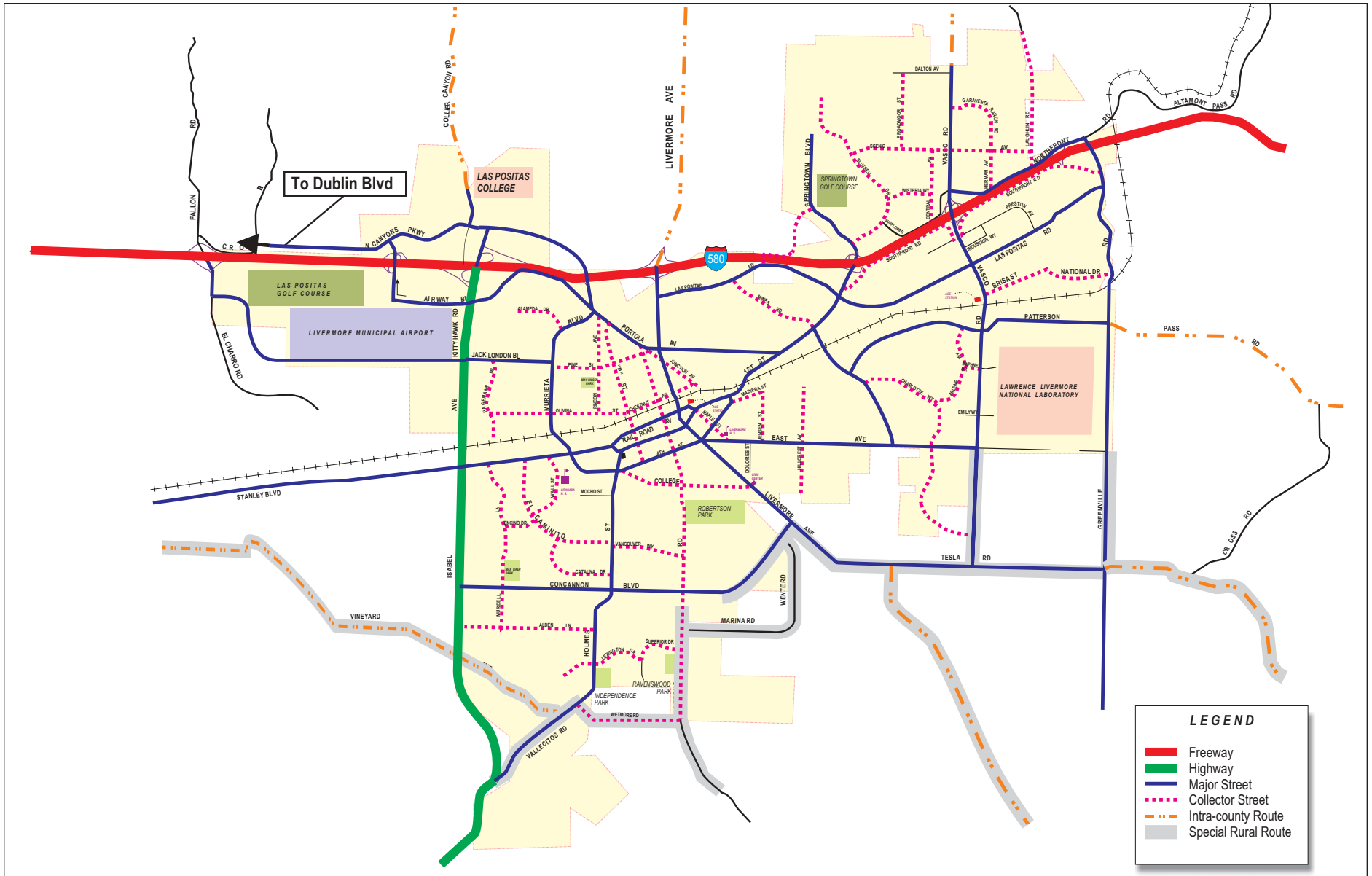
CIR-3.2.A1 Work with employers to encourage ridesharing (carpools and vanpools), public transit, bicycling, walking, flexible working hours, and preferential parking.

Bicycle Circulation

CIR-3.3.P1 Develop a comprehensive bikeway and trails system as a viable alternative to the automobile for all trip purposes in order to maximize the number of daily trips made by non-motorized means for residents of all abilities.

CIR-3.3.P3 Provide related facilities and services necessary to allow bicycle, pedestrian, and equestrian travel to assume a significant role as a local alternative mode of transportation and recreation.

CIR-3.3.A1 Develop, periodically review, and update a master plan for a Citywide bicycle and trails network.

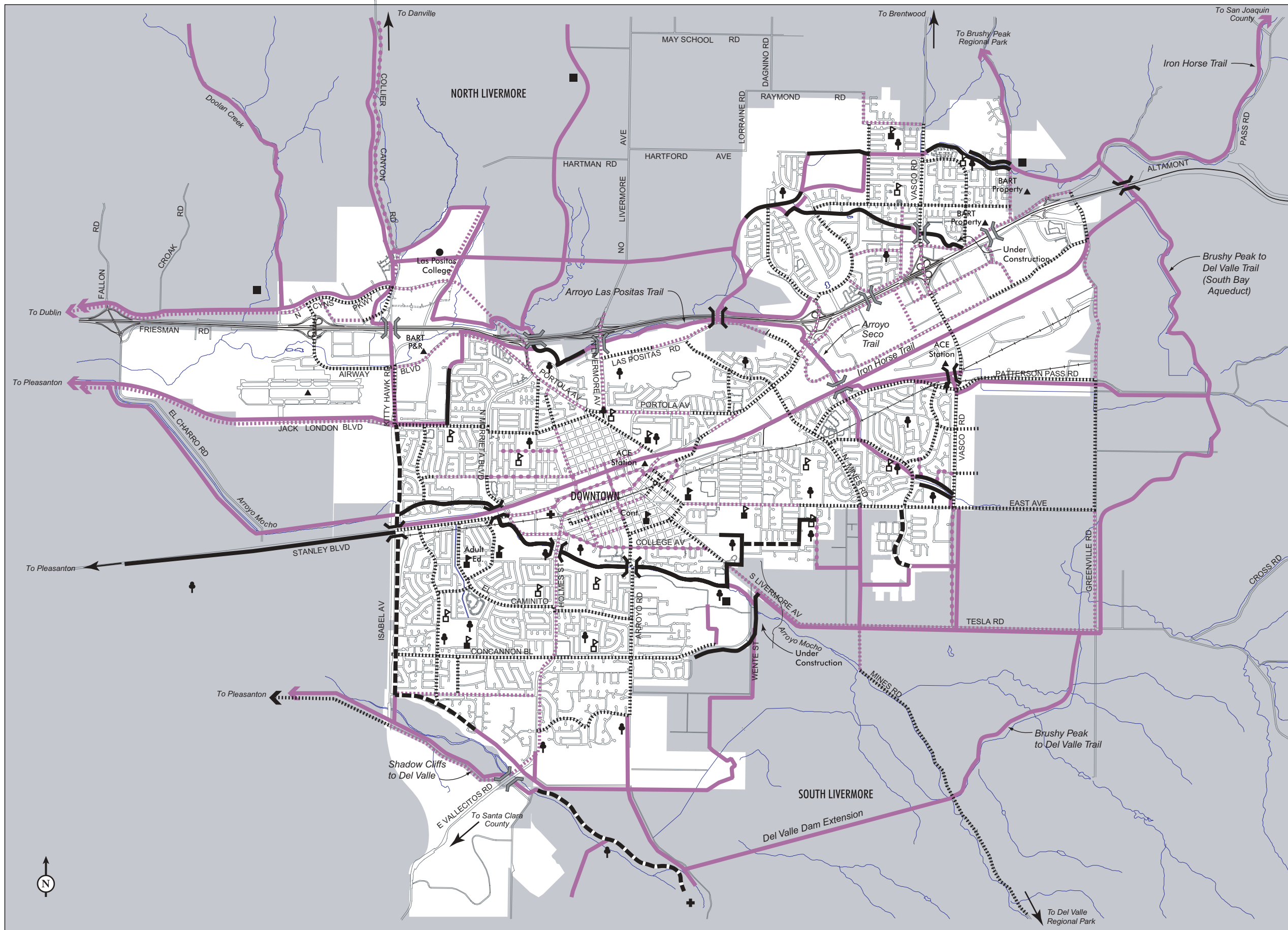


LSA

FIGURE IV.C-1

*Livermore Draft General Plan and
Downtown Specific Plan EIR
Proposed Roadway Functional
Classification System*

SOURCE: MEYER, MOHADDES ASSOC., 2003.

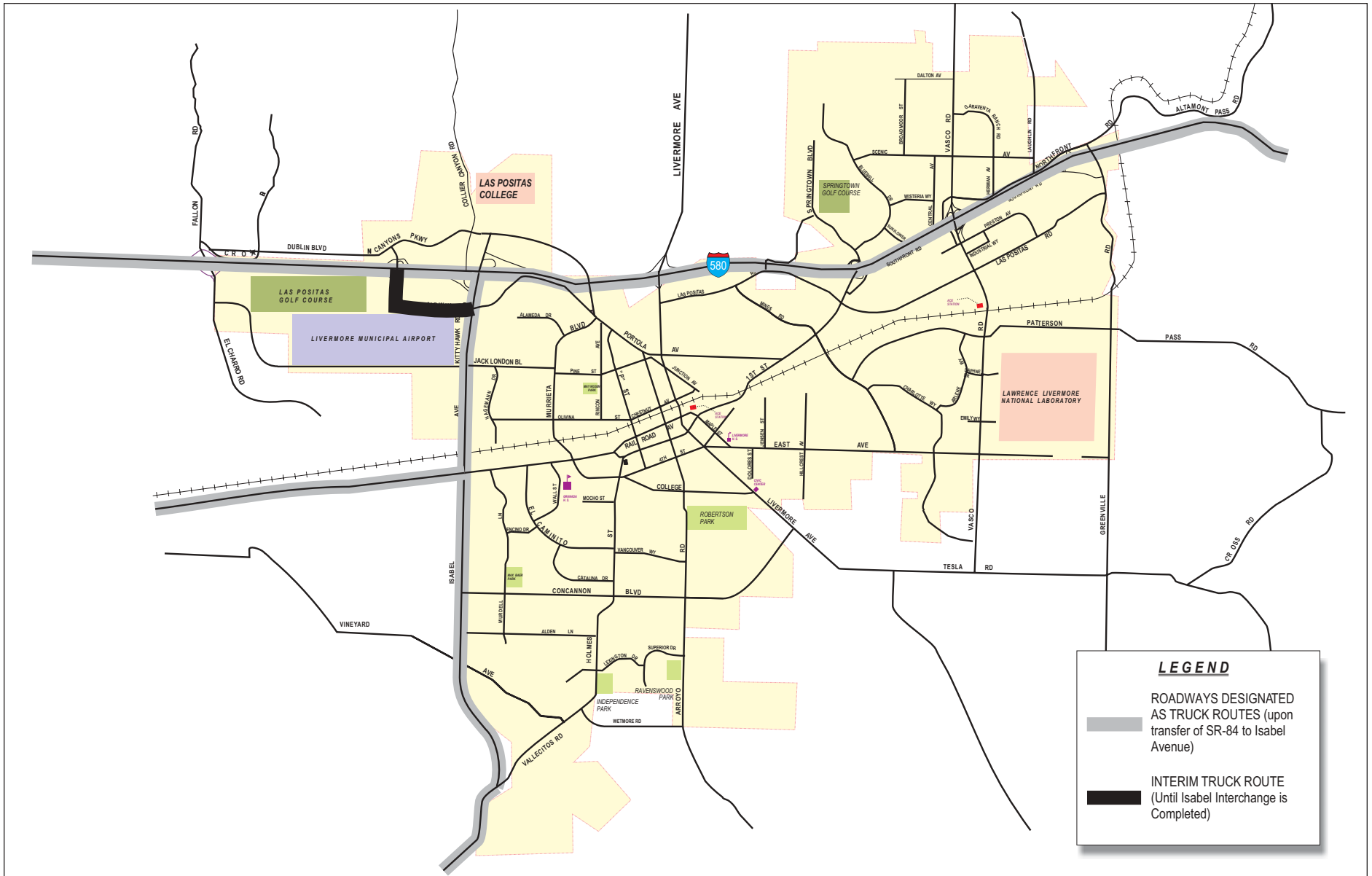


PROPOSED BIKEWAYS AND TRAILS NETWORK

- Existing Multi-Use Trails
- Existing Bike Lanes
- Existing Multi-Use Trails with Equestrian Component
- Existing Over/Undercrossing
- Proposed Over/Undercrossing
- Proposed Bike Lanes
- Proposed Trails
- Proposed Bike Routes
- Staging Area
- Elementary Schools
- Middle Schools
- High Schools
- Transportation Centers
- Hospitals
- Parks
- Area Outside City Limits

FIGURE IV.C-2

Livermore Draft General Plan and
Downtown Specific Plan EIR
Proposed Bikeways and
Trails Network



LSA

FIGURE IV.C-3

*Livermore Draft General Plan and
Downtown Specific Plan EIR
Proposed Truck Route System*

SOURCE: MEYER, MOHADDES ASSOC., 2003.

CIR-3.3.A2 Develop bicycle routes and multi-use trails in accordance with the City's adopted master plan for a bikeway and trails network, as shown in Figure 5-4.

Pedestrian Circulation

CIR-3.4.P1 The City shall ensure the safe and convenient movement of pedestrians throughout the City and within neighborhoods.

Level of Service Thresholds

CIR-4.1.P1 For the purposes of development associated traffic studies, road improvement design, and capital improvement priorities, the upper limit of acceptable service at signalized intersections shall be mid-level D, except in the Downtown Area and near I-580 interchanges.

CIR-4.1.P2 There shall be no level of service standard for the Downtown Area (see General Plan Land Use Map for Downtown Area location).

CIR-4.1.P3 The upper limit of acceptable level of service at selected intersections near I-580 interchanges shall be LOS E. These intersections include:

- (1) Airway Boulevard/North Canyons Parkway
- (2) Airway Boulevard/I-580 westbound ramps
- (3) Airway Boulevard/I-580 eastbound ramp-Kitty Hawk Road
- (4) Isabel Avenue/Portola Avenue
- (5) Isabel Avenue/I-580 westbound ramps
- (6) Isabel Avenue/I-580 eastbound ramps
- (7) Isabel Avenue/Airway Boulevard
- (8) North Livermore Avenue/I-580 westbound ramps
- (9) North Livermore Avenue/I-580 eastbound ramps
- (10) North Livermore Avenue/Arroyo Plaza
- (11) North Livermore Avenue/Las Positas Road
- (12) Springtown Boulevard/Bluebell Drive
- (13) Springtown Boulevard/I-580 westbound ramps
- (14) First Street/I-580 eastbound ramps
- (15) First Street/Southfront Road
- (16) First Street/Las Positas Road
- (17) Vasco Road/Northfront Road
- (18) Vasco Road/I-580 westbound ramps
- (19) Vasco Road/I-580 eastbound ramps
- (20) Vasco Road/Preston Avenue
- (21) Vasco Road/Industrial Drive
- (22) Greenville Road/Northfront Road-Altamont Pass Road
- (23) Greenville Road/I-580 westbound ramps
- (24) Greenville Road/I-580 eastbound ramps
- (25) Greenville Road/Southfront Road
- (26) Northfront Road/I-580 westbound ramps, (until I-580/Greenville Interchange Reconstruction Project is completed)
- (27) Southfront Road/I-580 eastbound ramps, (until I-580/Greenville Interchange Reconstruction Project is completed)

CIR-4.1.P4 The City accepts the need to balance competing objectives, including providing a system for safe, efficient and convenient movement of traffic (Goal CIR-2); minimizing cut-through traffic (Obj. CIR-1.2) and

preventing or minimizing physical or environmental constraints (Obj. CIR-5.2), and therefore recognizes that certain intersections, located at I-580 ramps and along east/west major streets carrying a high percentage of regional cut-through traffic, may exceed the established LOS standard. These intersections include:

- 1) First Street/N. Mines Road
- 2) Isabel Avenue/Airway Boulevard
- 3) Isabel Avenue/Jack London Boulevard
- 4) Vasco Road/Northfront Road
- 5) Vasco Road/I-580 Eastbound Ramps
- 6) Concannon Boulevard/S. Livermore Avenue
- 7) Holmes Street/Fourth Street

CIR-4.1.P5 The City shall place highest priority in City annual capital improvement planning and budgeting on feasible improvements to road components where existing traffic flows exceed the acceptable LOS standard.

CIR-4.1.P6 The City shall improve traffic flow on the local roadway system to achieve these Citywide LOS policies.

CIR-4.1.A1 Urge Caltrans to prioritize local I-580 interchange improvements based on maintaining LOS E or better.

CIR-4.1.A2 Improve intersections exceeding the City's established LOS, as established above in CIR-4.1.P4, to the extent feasible to minimize impacts and support the community character.

Regional/I-580 Improvements

CIR-4.1.A1 Urge Caltrans to prioritize local freeway interchange improvements based on maintaining LOS E or better.

CIR-4.1.A2 Improve intersections exceeding the City's established LOS, as established above in CIR-4.1.P4, to the extent feasible to minimize impacts and support the community character

CIR-7.2.P1 Protect right-of-way for the Isabel/I-580 freeway interchange.

CIR-7.2.P2 Protect right-of-way for the Portola Avenue extension.

Parking

CIR-9.1.P1 The City shall ensure new developments provide adequate parking.

CIR-9.1.A1 Encourage, and where possible facilitate, the use of shared parking arrangements to ensure that existing parking is efficiently utilized, especially in the Downtown Area.

Goods Movement

CIR-10.1.P1 The City shall encourage the expansion of rail transportation facilities and services to meet the needs of commerce as growth occurs.

CIR-10.2.A1 Enforce the City's designated truck route system and ordinances.

Livermore Municipal Airport

CIR-8.1.P1 Future development and operations at the Municipal Airport shall be in conformance with an approved master plan. The overall scale of operations at the Municipal Airport shall not exceed the thresholds listed below.

- a) Livermore Municipal Airport is a general aviation airport. Commercial flights shall be prohibited.
- b) To the greatest extent feasible, jet flights shall be restricted to approximately five percent of the total annual aircraft operations.
- c) Annual aircraft operations shall not exceed 370,000 flights in any given year, including itinerant and local operations.
- d) The total number of aircraft to be stored/parked at the Municipal Airport shall not exceed 900 in any given year, including hangar and apron space areas.
- e) No more than 60 percent of the Airport area designated Community Facility-Airport (CF-AIR) shall be covered with impervious surfaces, including but not limited to, buildings, taxiways, runways, parking areas, fuel areas, and wash areas.
- f) Nighttime flights between 10 PM and 6 AM shall be discouraged to the greatest extent feasible.
- g) Aircraft and airport operation noise levels shall be consistent with the thresholds established in the General Plan Noise Element.

CIR-8.1.P2 To protect the Municipal Airport from encroachment by incompatible uses, the City shall encourage development of property within the immediate vicinity of the Airport for light industrial and transportation uses to the extent that noise standards and flight clearance requirements are maintained, and environmental impacts are adequately mitigated.

CIR-8.1.P3 New residential land use designations or the intensification of existing residential land use designations shall be prohibited within the Airport Protection Area, as shown on Land Use Element Figure 3-4.

CIR-8.1.A1 Develop and periodically update a master plan for the airport to implement

Land Use Element

Selected policies and actions in the Land Use Element will help to improve future transportation system conditions through land use policies which reduce the number of trips, reduce the length of trips or otherwise help mitigate the impacts of future growth on the circulation system. Those policies are listed below.

LU-1.2.P1 Where possible, neighborhood and community commercial uses shall be integrated with public uses in similar areas as comprehensively designed service centers that include public facilities, day care centers, multi-purpose meeting places, health care facilities, housing for the elderly, transportation centers, and schools.

LU-1.4.P5 Before new development is allowed in designated Neighborhood Commercial areas, a planned development shall be developed for each such area showing circulation and land use in the interest of safety, convenience, and maximum benefit for tenant and shopper alike. This process shall be done in cooperation with the property owners and tenants of each area. The planned development will establish a basic framework for circulation; land use, building, signage, and landscaping that will permit orderly growth as the service area of each center expands.

LU-1.4.P6 Regional and community serving retail centers shall be limited only to retail uses that are regional-serving, e.g., big box retailers and other large national retailers. Regional centers are defined as large, planned commercial centers or stand-alone big-box retailers with service uses of a scale and function to serve a regional or community-wide market and a location adjacent and accessible to a highway or freeway.

LU-1.4.P7 Highway commercial development adjacent to I-580 shall be limited to areas in close proximity to freeway interchanges.

LU-1.4.P8 The City shall prohibit strip commercial development whether retail, office, or service commercial to avoid the following problems:

- traffic congestion resulting from inadequately controlled areas;
- high public costs of widening and improving major streets in order to accommodate traffic movement;
- difficulty in containment of such areas;

LU-3.1.P1 Prior to or concurrent with approval of any development applications, a specific plan shall be prepared and approved for the Greenville BART TOD. The specific plan shall provide detailed guidance for project-related land use, provision and financing of public services and facilities, open space preservation, visual resources, and recreational amenities, and shall include mitigation measures to reduce the impacts of individual projects on existing neighborhoods and environmental resources.

LU-3.1.P2 Development of the BART TOD shall be contingent upon BART establishing a firm timeframe and funded extension of BART services to the Greenville area.

LU-4.3.P4 The City shall assign high priority for the extension of urban services particularly those where multiple modes of transportation are available.

LU-2.1.P13 All residential growth shall be consistent with the policy that a proposed development must be in the best interest of the community as a whole, considering that our goal is to achieve balance in our community, which shall be understood to mean:

- That the adverse impact of the residential growth on air quality be balanced by factors such as reduced vehicle miles traveled (VMT) because of shopping facility locations and local employment of the residents.

b. Downtown Specific Plan. Chapter 7, Circulation and Transportation contains policies and improvements related to traffic and circulation in the Downtown Specific Plan. The Downtown Specific Plan also contains Chapter 8, Parking which contains a parking strategy for the Downtown and standards and guidelines for parking structures. Significant policies and improvements related to Downtown circulation and traffic and parking strategies and guidelines are summarized in Chapter III, Project Description of this EIR.

Additionally, there are a number of policies and recommendations in the Circulation Element of the Draft General Plan pertaining to the Downtown Area (DA) and implemented through the Downtown Specific Plan that will improve transportation, parking and pedestrian access, and mitigate future transportation impacts in Downtown. Those are listed below.

- Promote pedestrian activity as the primary mode of travel in Downtown. (CIR-6.1.P1)
- Provide a roadway system that is subservient to the pedestrian environment. (CIR-6.1.P2)
- Prohibit through trucks on First Street in the Downtown Area and divert truck traffic away from the Downtown Area. (CIR-6.1.P3)
- Relocate SR 84 to Isabel Avenue. (CIR-6.1.P6)
- Reduce the number of lanes along First Street to provide additional on-street parking, and to slow roadway traffic moving through the Downtown Area. (CIR-6.1.A1)

- Encourage alternative modes of travel to and within the Downtown Area, including transit and bicycles. (CIR-6.1.A2)

3. Impacts And Mitigation Measures

This subsection analyzes impacts related to *traffic, circulation, and parking* and related public policy that could result from implementation of the proposed project. The subsection begins with the criteria of significance, which establish the thresholds for determining whether an impact is significant. The latter part of this subsection presents the impacts associated with the proposed project, and recommends mitigation measures, as appropriate.

The traffic and circulation impact analysis of the Downtown Specific Plan is integrated within the overall impact analysis of the Draft General Plan because it is not feasible to separate out the specific impacts of the Downtown Specific Plan versus all other growth. The Downtown Specific Plan will add traffic not only in the Downtown area, but also to other roadways outside of Downtown. Similarly, growth in and around Downtown, and even regional growth, will affect the roadway system with the Specific Plan boundaries.

a. Criteria of Significance. Implementation of the proposed project would have a significant effect on transportation and circulation, including intersections, roadway segments, transit, emergency access, bicycle and pedestrian circulation and regional policies, if it would:

- *Intersections:* Cause a signalized intersection to exceed the City's peak hour level of service and average total stopped delay per vehicle targets of mid-LOS D and 45 seconds of average total stopped delay per vehicle. Therefore, any intersection that is not expected to operate in the future at mid-LOS D or better with an average delay per vehicle of less than 45 seconds, due to growth caused by the project, would be considered significant. For purposes of defining significant transportation system impacts, the mid-LOS D threshold is used in the EIR traffic analysis. In the future once the Draft General Plan is adopted, the Circulation Element policies will allow selected intersections to exceed the mid-LOS D standard. The City is proposing to adopt no level of service standard in Downtown and LOS E as the standard at selected intersections at or near freeway ramps.
- *Roadway Segments:* Cause the traffic volume on a roadway segment to exceed the estimated threshold capacity, where further widening to accommodate that volume is not deemed to be feasible due to cut-through traffic issues, secondary impacts, right-of-way constraints, or other reasons.
- *Transit Services:* Result in adverse impacts to transit services by causing the service to add additional capacity in the form of decreased service headways.
- *Emergency Access:* Result in inadequate emergency access.
- *Parking:* Result in inadequate parking supply suitably located to serve projected parking demand for new development
- *Pedestrian and Bicycle Conditions:* Create unsafe conditions for pedestrians or bicyclists.
- *Regional Policies and Programs:* Create conflict with local or regional policies or programs supporting alternative transportation. Result in inconsistency with Alameda County Congestion Management Agency (CMA) policies or result in significant impacts on CMA designated roads or highways based on CMA standards.

b. Impacts and Mitigation Measures of the Draft General Plan. This section evaluates potential transportation, circulation and parking impacts associated with the Draft General Plan and identifies mitigation measures to address these impacts, as necessary.

(1) Impacts to Local Roadway System. The buildout of the Draft General Plan has been assessed using a citywide computer traffic model which was developed for the General Plan. The new Livermore Citywide model was developed for year 2000 and 2025 conditions based on a combination of models, including the Tri-Valley model, Metropolitan Transportation Commission (MTC) Regional Baycast model, new Contra Costa Transportation Authority (CCTA) Countywide Model and the recent City of Pleasanton model. The Livermore model uses elements of each of these models to create a unique citywide model for use in the Draft General Plan.

The model assesses the land use plan as described in the Land Use Element. The model uses future land use types and intensities to estimate the future added trip making in the City. In addition, future regional growth in trip making is accounted for in the model. Trips are characterized as trip “attractions” and trip “productions.” Trip attractions are generally created by land uses such as retail, office and industrial. They attract one end of the trip from residential areas. They may attract trips from residences within the City or from outside of the City. If there are not enough “internal” (from within Livermore) trip productions to satisfy trip attractions, then trips are attracted from outside. For example, if there are not enough workers in the City to satisfy the employment demand, then workers come in from the outside. In an urban area this is often the case (because one city generally does not supply all its own trip productions to satisfy trip attractions); however, the extent of trip impacts and exports will vary depending on the mix of land uses and densities. Trip productions come primarily from the residential areas. The existing and future trip generation estimates for the City are shown in Table IV.C-1.

Table IV.C-1: Trip Generation Estimates

	2002 Existing	Proposed Project Buildout	Percent Change
Trip Productions	361,800	561,500	55%
Trip Attractions	347,100	628,100	81%
Total Trips	708,900	1,189,600	69%

Source: Meyer, Mohaddes Associates, 2003.

As indicated, the overall increase in trips is expected to be nearly 70 percent over 2002. Thus, there will be 70 percent more trips into and out of the City by buildout of the Draft General Plan (which includes the buildout of the Downtown Specific Plan). There is expected to be a greater proportionate increase in trip attractions than productions, indicating the larger proportionate increase in trips due to retail, office and industrial uses as opposed to new residential. It is important to note that trip projections in Table IV.C-1 reflect trips with at least one end of the trip in the City. There is another type of trip, called “external” trips which do not stop in Livermore, but pass through the City to a destination outside the City. Many such trips occur on the I-580, however, a large number also occur on the arterial system. Those types of trips are called “cut-through” trips since they merely cut-through the City without stopping.

The model also reflects the Altamont Gateway constraint. The Altamont Gateway policy limits the future capacity of the roadway facilities through the Altamont Gateway. The model was created to be consistent with this policy, and it is constrained to the designated capacity of the roadway links (primarily I-580) through the Altamont Pass.

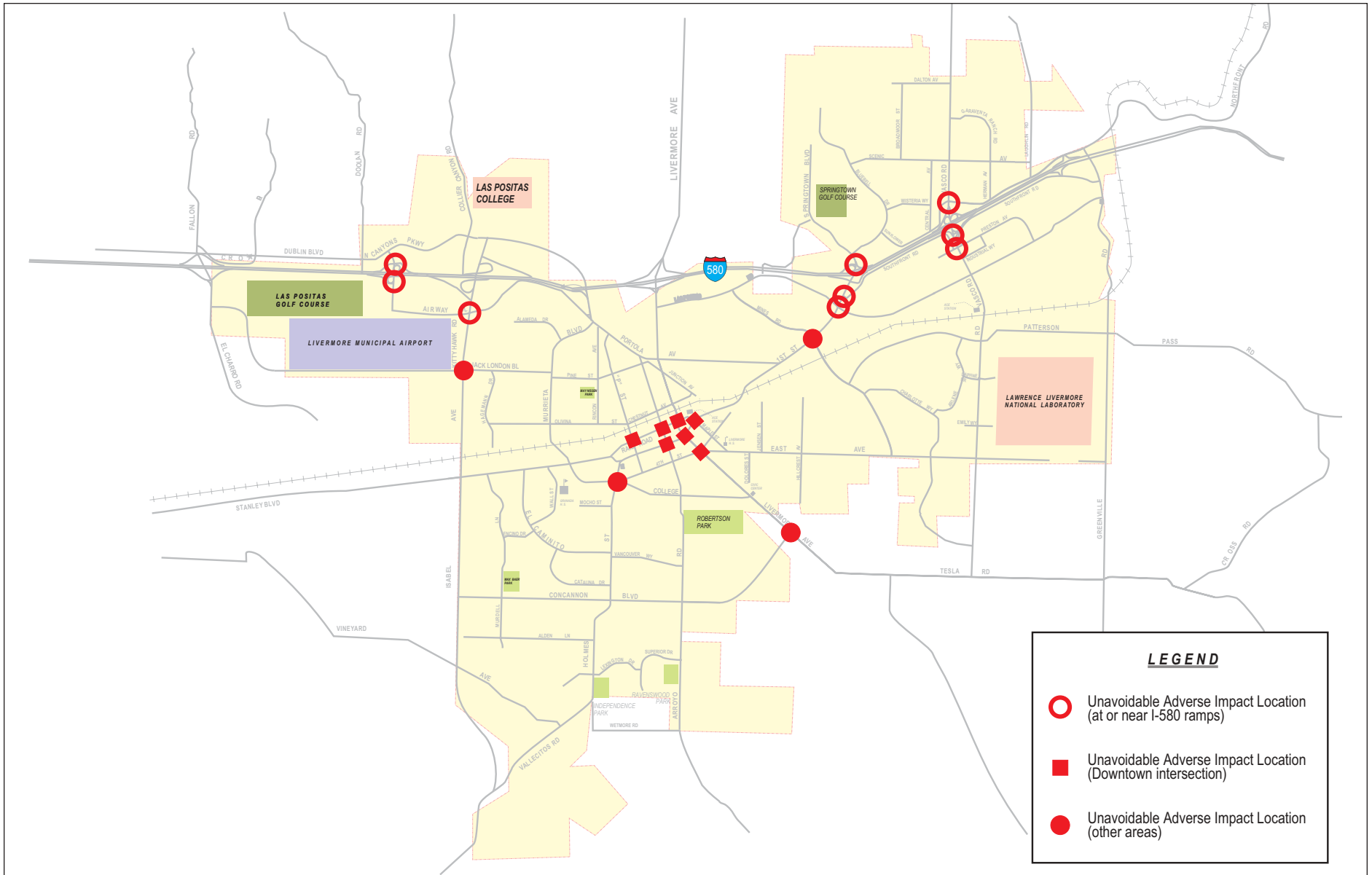
The model was calibrated to year 2000 conditions using existing citywide land use and network conditions, and traffic forecasts for 2025 conditions were generated using ABAG Projections 2002 data outside of Livermore, and Draft General Plan buildout land use data within Livermore. Forecasts included both link volumes on all roadways and intersection, turning volumes at all study intersections for AM and PM peak hour conditions. All intersections were measured using the Highway Capacity Manual methodology which calculates total average control delay per vehicle and equates the delay to a level of service. The level of service concept is discussed in detail on page 96 in the MEA. Intersection levels of service were calculated with buildout of the proposed project (Draft General Plan Land Use Element and Downtown Specific Plan).

Following completion of model forecasts and level of service analysis, roadway improvements were identified that are included as part of the General Plan Circulation Element. Proposed transportation system improvements are identified in the Draft General Plan Circulation Element. The improvements include regional improvements such as I-580 enhancements, new roadway links in the City, roadway widening, and intersection modifications to add lanes, intersection widening and traffic signal enhancements. Mitigation measures beyond the improvements included in the Draft General Plan would be necessary to maintain the City's level of services standards, however, no feasible measures can be identified at certain locations due to right-of-way constraints, potential secondary impacts, or encouragement of regional cut-through traffic on the City's street system.

This analysis considers both regional and local improvements, including roadway widening, new roadway connections, I-580 interchange improvements and intersection improvements. In the EIR Technical Appendices (bound separately) Appendix D contains the following:

- A table (D-1) listing the I-580 and roadway improvements that are proposed as part of the proposed project (Draft General Plan and Downtown Specific Plan).
- A table (D-2) summarizing the intersection improvements that are proposed as part of the proposed project.
- A table (D-3) listing the intersection service levels with buildout of the proposed project as well as with the recommended improvements. This table also indicates those locations that are expected to experience level of service worse than mid-LOS D. Those locations are considered to be significantly impacted, as described in this section. Figure IV.C-4 illustrates the significantly impacted locations. Figure IV.C-5 illustrates the locations of proposed roadway and intersection improvements.

(2) Impacts to Regional Roadway System (CMA). Since the buildout of the Draft General Plan would generate more than 100 peak hour trips, the impacts on the regional transportation system were assessed using the Alameda County Congestion Management Agency (ACCMA) Countywide Travel Demand Model. The impact analysis for roadways includes all Metropolitan Transportation System (MTS) roadways and Congestion Management Plan (CMP) designated roadways, plus several local MTS roadways in the vicinity of the Downtown plan area. The traffic forecasts were based on the most recent version of the Countywide Model, which uses Association of Bay Area Government's (ABAG) *Projections 2002* forecasts. The model was used to calculate trip generation, trip distribution, mode choice and trip assignment of project trips from/to Livermore. The results were summarized for both highway and transit impacts. Highway impacts were summarized at the designated link

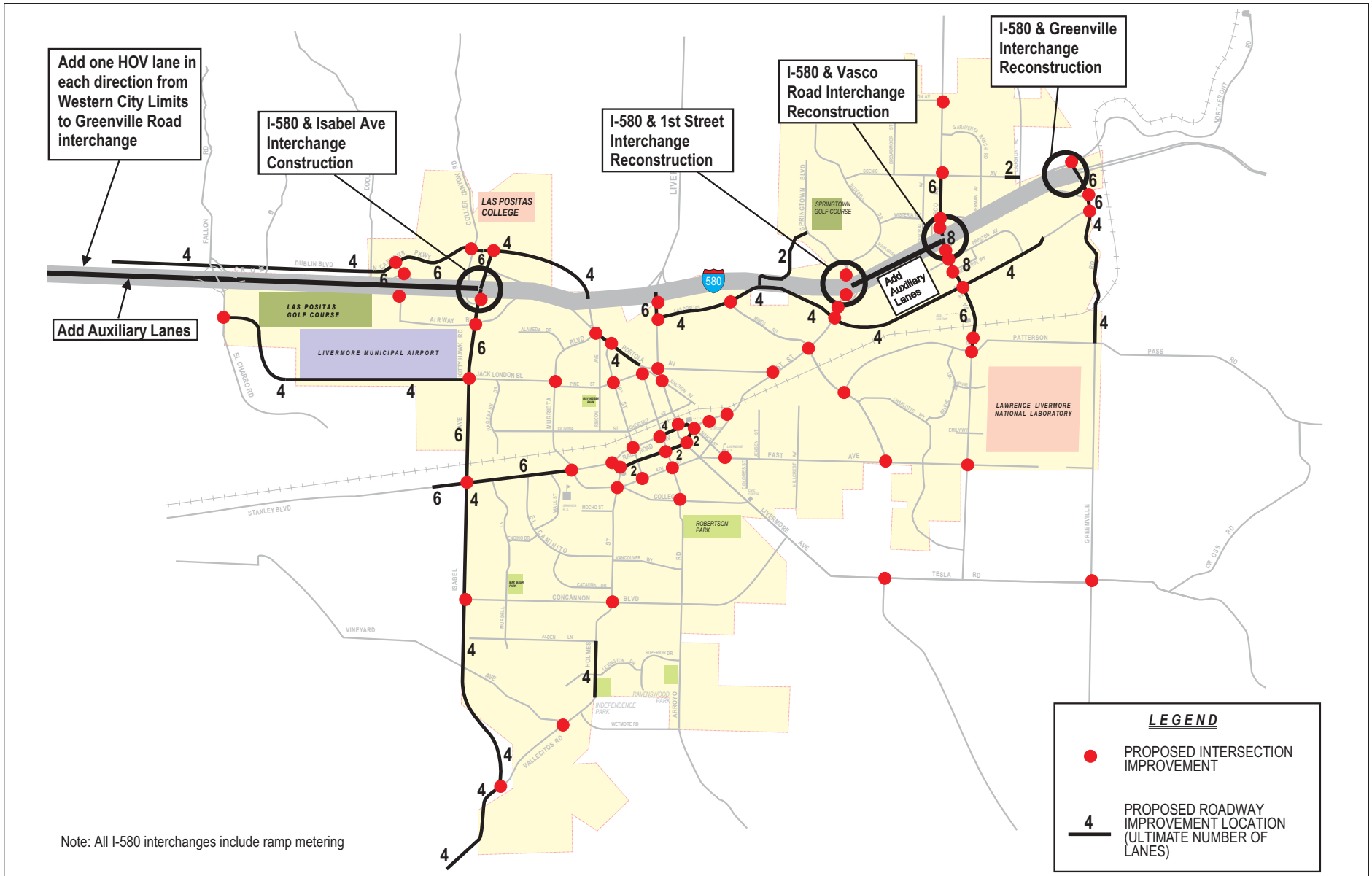


LSA

FIGURE IV.C-4

*Livermore Draft General Plan and
Downtown Specific Plan EIR
2025 Intersections with
Unavoidable Adverse Impacts*

SOURCE: MEYER, MOHADDES ASSOC., 2003.



LSA

FIGURE IV.C-5

Livermore Draft General Plan and
 Downtown Specific Plan EIR
 Proposed Intersection and
 Roadway Improvements

SOURCE: MEYER, MOHADDES ASSOC., 2003.

locations identified based on discussions with ACCMA staff.¹ Transit impacts were addressed for LAVTA and BART.

The levels of service (LOS) for the designated links were analyzed in a spreadsheet using the Florida Department of Transportation LOS methodology,² which provides a planning level analysis based on *Highway Capacity Manual* methods. As a planning level analysis, the level of service is based on forecasts of traffic and assumptions for roadway and signalization control conditions, such as facility type (freeway, expressway, and arterial classification), speeds, capacity and number of lanes. The assumption for the number of lanes at each link location was extracted from the model and confirmed through field observations. The traffic baseline forecasts for 2010 and 2025 were extracted at the required CMP and MTS highway segments from the ACCMA Countywide Travel Model, for both the AM and PM peak hours. A detailed report and tables are provided in the Appendix D, which describes the analysis and includes all data for 2010 and 2025 forecast years.

The CMA's threshold of significance for significant project-related impacts is as follows: if the addition of project-related traffic would result in a level of service (LOS) value worse than LOS E on CMA roadways, except where the roadway link was already at LOS F under no project conditions. For those locations where the baseline condition is LOS F, the impacts of the project were considered significant if the contribution of project-related traffic is at least 3 percent of the total traffic. This change is equivalent to about one-half of the change from one level of service to the next. For transit services, a significant impact is determined if the increase in ridership due to the project requires a decrease in headway (increase in service frequency) on one or more the transit routes serving project trips.

(3) Less-than-Significant Impacts of the Draft General Plan. Following is a summary of the less-than significant transportation impacts that would result from implementation of the Draft General Plan.

Transit Services. The project is not expected to result in significant impacts to the LAVTA transit buses or BART based on the CMA analysis (the CMA analysis is contained in Appendix D). Implementation of policy CIR-3.1.A1, A2, and A3, CIR-3.2.A1 will help to mitigate impacts on the transit system by advocating improvements to the system and helping facilitate those improvements through land use actions, preservation of right-of-way for transit and trip reduction strategies.

Emergency Access. The project is not expected to result in inadequate emergency vehicle access. Implementation of the following policies and actions would mitigate impacts to the emergency access system: policies CIR-1.1.P1, P2, P3, and P4 would require the management and development of the local roadway system to support the Land Use Element; policies CIR-1.3.P1 and P2 would minimize local cut-through traffic in residential neighborhoods; policies CIR-2.1.P1, P2, P3 and P4 would provide adequate road linkages throughout Livermore; policies CIR-4.1.P1, P5, P6 would maintain adequate levels of service for all areas of the City. Implementation of these policies will maintain the City's level of service standard at most key intersections throughout the City. Where the City's level of service standards will not be maintained, the emergency access routes must be coordinated to

¹ Please note that these link locations are similar to those identified in the Notice of Preparation response letter from Alameda County CMA included in Appendix A of this EIR.

² Florida Department of Transportation. Level of Service Standards and Guidelines Manual for Planning, 1995.

ensure that there will be adequate alternative routes for emergency vehicles. It is not expected that future congestion will significantly affect emergency vehicle access due to the availability of alternative routes and improvements to key roadways and intersections to maintain standards. Also, the City has implemented, and will continue to implement, traffic signal system upgrades that help to facilitate more efficient emergency vehicle access and give priority to emergency vehicles.

Parking. The project is not expected to result in an inadequate parking supply because the General Plan does not modify current parking standards. Future developments will continue to supply parking according to City code requirements. Policy CIR-9.1.P1 ensures that new development provides adequate parking. In the Downtown plan area, a shared parking analysis has been conducted that identified the required number of spaces and the general location of those spaces. Draft General Plan action CIR-9.1.A1 encourages shared parking arrangements in the Downtown plan area.

Pedestrians and Bicyclist Travel. The project is not expected to result in unsafe conditions for pedestrians and bicyclists. Implementation of the following policies and actions would mitigate impacts to the pedestrian and bicyclist travel: policies CIR-3.3.P1 through P6 would provide for a bicycle and trails network, actions CIR-3.3.A1 and A2 would support the implementation of a bikeway and trails system; and policies CIR-3.4.P1, P2 and P3 would support the safe and convenient movement of pedestrians. The City will continue to require development projects to provide bicycle and pedestrian facilities and amenities according to City codes, and as a result of the development review process.

Regional Transportation Policies on Alternative Transportation. The project is not expected to result in conflicts with regional transportation policies on alternative transportation since the Draft General Plan contains goals, objectives and policies that support alternative transportation. Specifically, associated policies and actions under objectives CIR-3.1 and CIR-3.2 support the promotion of alternative transportation modes and alternatives to single occupant vehicle travel. These policies support increased use of LAVTA services, advocate the extension of BART, advocate the preservation of right-of-way for high occupancy vehicle (HOV) lanes, advocate the expansion of ACE passenger service, and advocate coordination with Caltrans and other agencies on ridesharing, carpooling and park and ride services.

Truck Routes and Goods Movement. The project is not expected to result in significant impacts to the truck route system or to goods movement in the City, although changes to the truck route system are proposed. The currently designated truck routes on First Street, Livermore Avenue, Holmes Street, Vallecitos Road and a portion of Stanley Avenue are proposed for deletion from the system. However, a new truck route is designated on new SR 84, along Isabel Avenue. Once the truck route changes are enacted, there will still be a continuous route for “through” trucks in the City, and local delivery trucks will not be affected by the changes. Also, action CIR-10.2.A1 will ensure that the City will enforce the truck route system and ordinances.

(4) Significant Impacts of the Draft General Plan. Implementation of the Draft General Plan could result in significant transportation impacts to intersections and roadway links. There are three areas where intersections impacts could be significant; 1) in Downtown, 2) at intersections near I-580, and 3) other intersections. As noted, there are three proposed thresholds of significance for those three sets of intersections. However, for purposes of the EIR transportation analysis, any

intersection not meeting the City’s mid-LOS D threshold is considered significant. Appendix D includes the intersection level of service analysis worksheets for each study intersection for the AM and PM peak hours. The projected significant impacts are described below.

Impact TRAF-GP-1: Relative to existing conditions, growth associated with implementation of the Draft General Plan would produce significant impacts at seven intersections in the Downtown area by the year 2025. (S)

At the seven impacted intersections in the Downtown (listed in Table IV.C-2), the City has deemed that it is not feasible to provide enough lane capacity to achieve mid-level LOS D because Downtown Specific Plan goals and objectives, environmental constraints, right-of-way constraints or cut-through traffic volumes would prevent the implementation of improvements which would achieve mid-level LOS D or better. It is important to note that, after implementation of the General Plan Circulation Element, these impacted locations will be subject to the new standard for Downtown intersections that would allow those intersections to operate at LOS F without requiring improvements to meet LOS D or E. In the interest of full disclosure, these intersections have been identified as significant impacts in this EIR traffic study as the most conservative and “worst case” approach to identifying significant project impacts. The intersection locations that are not expected to meet the mid-LOS D standard (and therefore will require a statement of overriding considerations) are shown in Table IV.C-2.

At these locations, traffic conditions will be monitored, and feasible improvements will be implemented as required, although the traffic model forecasts indicate that the City’s desired level of service standard will not ultimately be achieved at these locations. As noted above, the City is proposing to adopt a new intersection level of service standard for the Downtown (see policies CIR-4.1.P1 and P2). Those new policies, by themselves, are not considered to be mitigation for the impacts. Implementation of policies and actions CIR-1.1.P1, P2, P4, CIR-2.1.P1, P3, and A2 will help reduce significant adverse impacts to affected intersections; however this impact is still considered significant and unavoidable.

Mitigation Measure TRAF-GP-1: The City shall require on-going development review of circulation system impacts, mitigation of those impacts to the greatest extent feasible, traffic signal coordination, driveway/access control, preservation of right-of-way for future improvements and construction of missing roadway links to relieve congestion at impacted locations. While those policies and actions will result in many intersections meeting the City’s LOS standards, they will not reduce the impact at the above listed locations to a less-than-significant level. (SU)

Impact TRAF-GP-2: Relative to 2003 conditions, implementation of the Draft General Plan would result in significant impacts at nine intersections at or near I-580 by the year 2025. (S)

Table IV.C-2: Impacted Downtown Intersections

Significantly Impacted Downtown Intersection Location	Level of Service Upon Buildout with Improvements AM/PM	Average Control Delay per Vehicle AM/PM (Seconds)
L St./First St.	C/E	33/65
L St./Railroad Ave.	D/F	36/114
Livermore Ave./First St.	C/F	32/87
Livermore Ave./Fourth St.	E/F	60/116
Livermore Ave./Railroad Ave.	F/F	172/84
P St./Railroad Ave.	B/D	20/52
Railroad Ave.-Maple St./First St.	F/F	162/191

Source: Meyer, Mohaddes Associates, 2003.

At the nine identified intersections at or near I-580 (listed in Table IV.C-3) the City has determined that it is not feasible to provide sufficient lane capacity to achieve mid-level LOS D because environmental constraints, right-of-way constraints or cut-through traffic volumes would prevent the implementation of improvements which would achieve mid-level LOS D or better. It is important to note that, after implementation of the Draft General Plan Circulation Element, these impacted locations will be subject to the new level of service standards for intersections at or near I-580 intersections (see CIR-4.1.P3). However, although the future policy would allow those intersections to operate at LOS E without further improvements, in the interest of full disclosure, these intersections have been identified as significant impacts in this EIR traffic study as the most conservative and “worst case” approach to identifying significant project impacts. The intersection locations that are not expected to meet the mid-LOS D standard (and therefore will require a statement of overriding considerations) are shown in Table IV.C-3. Policies and actions CIR-1.1.P1, P2, P4, CIR-2.1.P1, P3 and A2 will help reduce significant adverse impacts to affected intersections; however this impact is still considered significant and unavoidable.

Table IV.C-3: Impacted Intersections Near I-580

Significantly Impacted Intersection Location At or Near I-580 Ramps	Level of Service Upon Buildout with Improvements AM/PM	Average Control Delay per Vehicle AM/PM (Seconds)
Airway Blvd./I-580 EB ramp	D/E	39/75
Airway Blvd./I-580 WB ramps	D/B	53/13
First St./Las Positas Rd.	D/D	53/53
First St./Southfront Rd.	E/E	69/67
Isabel Ave./Airway Blvd. ^a	D/F	45/126
Springtown Blvd./I-580 WB ramps	D/B	47/14
Vasco Rd./I-580 EB ramps ^a	D/F	45/149
Vasco Rd./Northfront Rd. ^a	E/F	78/83
Vasco Rd./Preston Ave.	C/E	20/79

^a This location would not meet the new proposed LOS standard of LOS E.

Source: Meyer, Mohaddes Associates, 2003.

Mitigation Measure TRAF-GP-2: The City shall continue on-going development review of circulation system impacts from individual projects, mitigation of those impacts to the greatest extent feasible, traffic signal coordination, driveway/access control, preservation of right-of-way for future improvements and construction of missing roadway links to relieve congestion at impacted locations. However, the impacts at the nine intersections near I-580 cannot be reduced to a less-than-significant level. (SU)

Impact TRAF-GP-3: Relative to 2003 conditions, implementation of the Draft General Plan would produce significant impacts at four intersections (outside of the Downtown area and not at or near I-580 ramps) by year 2025. (S)

At four intersections (listed on Table IV.C-4) outside of the Downtown area and not at or near I-580 ramps, the City has determined that it is not feasible to provide enough lane capacity to achieve mid-level LOS D because environmental constraints, right-of-way constraints or cut-through traffic volumes would prevent the implementation of improvements which would achieve mid-level LOS D or better. The intersection locations that are

Table IV.C-4: Other Impacted Intersections

Other Significantly Impacted Intersection Locations	Level of Service Upon Buildout with Improvements AM/PM	Average Control Delay per Vehicle AM/PM (Seconds)
Concannon Blvd./Livermore Ave.	B/D	18/51
First St./Mines Rd.	E/E	68/56
Fourth St./Holmes St.	D/D	41/48
Isabel Ave./Jack London Blvd.	D/D	50/49

Source: Meyer, Mohaddes Associates, 2003.

not expected to meet the mid-LOS D standard (and therefore will require a statement of overriding considerations) are shown in Table IV.C-4. Policies and actions CIR-1.1.P1, P2, P4, CIR-2.1.P1, P3 and A2 will help reduce significant adverse impacts to affected intersections; however this impact is still considered significant and unavoidable.

Mitigation Measure TRAF-GP-3: The City shall continue on-going development review of circulation system impacts from individual projects, mitigation of those impacts to the greatest extent feasible, traffic signal coordination, driveway/access control, preservation of right-of-way for future improvements and construction of missing roadway links to relieve congestion at impacted locations. However, the impacts at the four intersections cannot be reduced to a less-than-significant level. (SU)

Impact TRAF-GP-4: Relative to 2003 conditions, implementation of the Draft General Plan would produce significant impacts at 15 roadway segment locations. (S)

At the following 15 roadway segments, the City has determined that it is not feasible to provide enough lane capacity to accommodate the level of traffic predicted by the traffic model because of local environmental constraints, right-of-way constraints or cut-through traffic. The locations that are not expected to be improved to the number of lanes as indicated in the analysis (and therefore will require a statement of overriding considerations) are shown below:

- Airway Boulevard from Portola Avenue to I-580
- Altamont Pass easterly from Greenville Road
- First Street from Holmes Street to Maple Avenue
- First Street from Inman Street to I-580
- Greenville Road from Los Positas Road to I-580
- North Mines Road from Los Positas Road to Patterson Pass Road
- Portola Avenue from Murrieta Boulevard to L Street
- Portola Avenue from Collier Canyon Road to I-580
- Vasco Road from West Gate to Patterson Pass Road
- Vineyard Avenue westerly from Isabel Avenue

Implementation of policies and actions including CIR-1.1.P1, P2, P4, CIR-2.1.P1, P3, and A2 would help mitigate the impacts to roadway segments; however, impacts to these segments cannot be reduced to a less-than-significant level

Mitigation Measure TRAF-GP-4: The City shall require on-going project development review of circulation system impacts, mitigation of those impacts to the greatest extent feasible, traffic signal coordination, driveway/access control, preservation of right-of-way for future improvements and construction of missing roadway links to relieve congestion at impacted locations. However, the impacts at the 15 roadway segments cannot be reduced to a less-than-significant level. (SU)

Impact TRAF-GP-5: Based on traffic forecasts from the Countywide Model, in year 2025 there are five roadway and I-580 segment locations which are projected to be significantly impacted based on CMA standards. (S)

Significant impacts to the Congestion Management Program (CMP) system, based on criteria established by the Congestion Management Agency (CMA) are projected at the following five locations:

- I-580 eastbound, west of North Livermore Avenue
- SR 84/Vallecitos southbound, south of Vineyard Avenue
- SR 84/Vallecitos northbound, south of Vineyard Avenue
- E. Stanley Boulevard eastbound, west of Isabel Avenue
- E. Stanley Boulevard eastbound, east of Isabel Avenue

Implementation of the following policies and actions will help mitigate the impacts to roadway and I-580 segments including CIR-1.1.P1, P2, P4; CIR-2.1.P1, P3, A2; CIR-3.1.A2, A3, A4, A5; and CIR-7.2.P1 and P2. In implementing those policies, the City will promote increased local transit ridership as an alternative to driving, preserve options for future transit use, advocate the extension of BART to Greenville Road, and support I-580 interchange improvements. The City will continue to work with regional agencies to identify solutions to local and regional transportation problems. However, no mitigations are available to reduce the significant impacts to the identified roadway segments to a less-than-significant level.

Mitigation Measure TRAF-GP-5: At this time, no sufficient mitigation measures are available to reduce this impact to a less-than-significant level. (SU)

c. Impacts and Mitigation Measures of the Downtown Specific Plan. The traffic and circulation impact analysis of the Downtown Specific Plan is integrated within the overall impact analysis of the Draft General Plan because it is not feasible to separate out the specific impacts of the Downtown Specific Plan versus all other growth. The Downtown Specific Plan will add traffic not only in the Downtown area, but also to other roadways outside of Downtown. Similarly, growth in and around Downtown, and even regional growth, will affect the roadway system with the Specific Plan boundaries. Note that the list of improvements is citywide and priorities will be established on a citywide basis.

As discussed in Impact TRAF-GP-1, relative to 2003 conditions, growth associated with the Downtown Specific Plan and the Draft General Plan would produce significant impacts at seven intersections within the Downtown area. The discussion and mitigation measures following Impact TRAF-GP-1 describes the evaluation of this impact. As determined previously, there are no further mitigation measures in addition to those identified that would reduce this impact to a less-than-significant level.

D. UTILITIES, INFRASTRUCTURE, AND ENERGY

This section evaluates potential impacts related to the provision of water, wastewater and storm drainage facilities; electricity; gas; telecommunications; solid waste collection and disposal; and energy resulting from implementation of the project. Mitigation measures are recommended as appropriate.

1. Setting

The EIR setting information for utilities, infrastructure, and energy is contained in Volume I: Master Environmental Assessment (MEA). Please refer to Chapter 6, Infrastructure and Utilities, in the MEA for a discussion of water supply and distribution; wastewater collection, treatment, and disposal; stormwater system; solid waste collection and disposal; energy; and telecommunications.

2. Guiding Documents

This section identifies the policies contained in the Draft General Plan and the Downtown Specific Plan pertaining to utilities, infrastructure, and energy. The policies and actions identified below have been carefully selected so as to include only those that relate directly to potential impacts as defined by the criteria of significance set forth in subsection 3a below. A complete list of Draft General Plan policies is contained in Appendix B of this EIR. Note that goals, objectives, policies and actions from the South Livermore UGB Initiative or the North Livermore UGB Initiative are identified in *italics* and are noted as initiative language in the Draft General Plan.

a. Draft General Plan. The Draft General Plan incorporates policies and actions concerning the provision of wastewater, water, and storm drainage services into the Infrastructure and Public Services Element. Because there are an extensive number of policies concerning those issues, and in the interest of brevity of this EIR, please see the full list of these policies in Appendix B in the Technical Appendices. In addition, policies concerning utilities are contained in the Open Space and Conservation Element and the Economic Development Element and these policies are provided below. Policies concerning the provision of electricity, gas, telecommunications, and solid waste services are provided below. Note that goals, objectives, policies and actions from the South Livermore UGB Initiative or the North

Infrastructure and Public Services Element

Water Distribution System:

INF-1.1.P1 Potable water shall be available to the City's residents and businesses.

INF-1.1.P2 The City shall maintain a water system capable of sustaining required fire flows at all times. The City shall work with California Water Service Company to insure its system also meets required fire flows.

INF-1.1.P3 Support the development of additional sources of irrigation water for vineyards and other cultivated agriculture by investigating recycled water and development of other supply and delivery resources.

INF-1.1.P4 The City shall work with Zone 7 to consider developing a pump monitoring and cost allocation system to cover the cost of new potable water in the event that additional supplies are needed.

INF-1.1.P5 Development will not result in a reduction of water quality below those standards set forth in State and Federal laws and regulations.

INF-1.1.A1 Review and update as necessary ordinances, policy procedures and/or fee programs establishing the requirement and techniques for collecting financial contributions from new development.

INF-1.1.A2 Update the master plan prepared for water as necessary for the areas supplied by the City to identify appropriate storage, pumping and distribution systems to support the current and proposed land use development projections in the General Plan.

INF-1.1.A3 Identify and budget for additional operation costs to support the expanded water storage, pumping and distribution system.

INF-1.1.A4 Implement the capital improvement project recommendations contained in the updates to the Water Master Plan.

INF-1.1.A5 Work with Cal Water to improve their existing infrastructure to meet City and fire flow, pressure and storage standards.

INF-1.1.A6 Prepare a multi-year schedule in the Capital Improvement Program of water infrastructure improvements.

INF-1.1.A7 Criteria to be used for the design of potable water system shall be in the master plan prepared for water, including maximum day water demand, peak hour/maximum day water demand, fire flow requirements, water storage requirements, and adequate water pressure.

INF-1.1.A8 All new development projects shall be responsible for constructing an adequate potable water distribution system and paying water connection fees to construction additional necessary storage, pumping and distribution facilities.

Water Supply and Storage:

INF-1.2.P1 The potable water distribution and storage system shall be sized to serve development anticipated under the General Plan and shall not provide for additional growth and development beyond that anticipated under the General Plan.

INF-1.2.P2 The approval of new development shall be conditional on the availability of sufficient water supply, storage and pressure requirements from the City, California Water Service Company and Zone 7 for the project as applicable.

INF-1.2.P3 Structures with plumbing that are located within City limits shall connect to the water system, unless distance from public water system or other factors indicate a need for an exemption.

INF-1.2.P4 Extensions of water service beyond the City-approved service area shall be prohibited. Exceptions shall be made for unusual public health and safety hazards, as determined by the City Council.

INF-1.2.P5 Water storage and distribution system extensions beyond the approved service area shall be prohibited unless such water services are needed to serve properties within the City's Urban Growth Boundary (UGB).

INF-1.2.P6 A water storage tank site study shall be conducted to identify the location of proposed water storage tanks. The location selection and construction of these storage tanks should seek to minimize the visual impact that such facilities could have to the surrounding areas.

INF-1.2.P7 Major utility lines, such as water supply mains and fire protection mains, shall be carefully planned where they cross a seismic fault. They shall cross at right angles, or nearly so, be accessible for rapid repair, and be provided with safety features such as automatic shutoff valves, switches and expansion joints. Other equipment shall be provided to ensure minimal adverse impact on adjacent and surrounding areas and to facilitate restoration of service in the event of fault displacement.

INF-1.2.P8 The design of water distribution systems shall seek to minimize crossings of wetlands or creeks. Water lines that cross existing creeks should be located at road crossings, use sewer bridges to span the creek at crossings where possible, or go under creeks.

INF-1.2.P9 Installation of the water distribution system should occur concurrently with construction of new roadways to maximize efficiency and minimize disturbance due to construction activity.

INF-1.2.P10 Rural development using individual wells shall be responsible for conforming to applicable health standards and for obtaining the necessary permits from Zone 7 and the State of California Department of Health Services.

Wastewater:

INF-2.1.P1 Municipal sewer treatment shall be available to the City's residents and businesses.

INF-2.1.P2 Septic tanks shall be allowed only in agricultural zones when approved by the Alameda County Health Department.

INF-2.1.P3 The approval of new development shall be conditional on the availability of adequate long-term capacity of wastewater treatment, conveyance and disposal sufficient to service the proposed development.

INF-2.1.P4 The City shall implement a wastewater disposal master plan designed to provide for the disposal of peak wet weather flows anticipated under buildout of the General Plan. No new development entitlements shall be granted once the Average Dry Weather Flow reaches 7.0 million gallons per day at the Water Reclamation Plant until a master plan for sewer has been adopted. This master plan may include any, or a combination of the following components:

- (a) Increased water reclamation, storage and disposal via agriculture irrigation and/or other uses.
- (b) Increased water reclamation, storage within an approved Zone 7 facility such as the Chain of Lakes, and disposal via irrigation within Livermore and the surrounding vicinity.
- (c) The purchase of additional capacity in the LAVWMA export pipeline. This option must be approved by the voters of Livermore through a subsequent ballot measure.
- (d) Other options as may be developed that are more cost effective and/or environmentally superior

INF-2.1.P5 All new development shall demonstrate to the City that the downstream sanitary sewer system is adequately sized and has sufficient capacity to accommodate anticipated sewage flows. If the downstream mains are found to be inadequate, the developer shall provide additional facilities to accept the additional sewage expected to be generated by the development.

INF-2.1.P6 Structures with plumbing that are located within City limits shall connect to the public wastewater collection system, unless topography, or distance from the public sewer system indicate a need for an exemption.

INF-2.1.P7 Major sewer collection and transmission systems shall be carefully planned where they cross a seismic fault. They shall cross at right angles, or nearly so, be accessible for rapid repair, and be provided with safety features such as automatic switches, expansion joints and sufficient drop between manholes to accommodate vertical displacement across faults. Other equipment shall be provided to ensure minimal adverse impact on adjacent and surrounding areas and to facilitate restoration of service in the event of fault displacement.

INF-2.1.P8 Sewer collection and transmission systems shall be designed and constructed in such a manner as to minimize potential inflow and infiltration.

INF-2.1.P9 The criteria to be used for the design of the sanitary sewer system shall be in the master plan prepared for sewer as well as guidelines for facilities planning, including reliance on gravity drainage to minimize pumping to the extent feasible and basing pipe size on the peaking factor and wet weather flow required per the master plan prepared for sewer.

INF-2.1.P10 All new development projects shall be responsible for construction a sanitary sewer collection and conveyance system as part of the City-wide infrastructure plan. This system shall be designed to serve developments within the approved General Plan only and shall not be extended to serve uses outside of the Urban Area.

INF-2.1.P11 The sanitary sewer system shall be designed and constructed in such a manner as to minimize potential environmental impacts.

INF-2.1.P12 The City of Livermore shall pursue the implementation of Water Reclamation Plant capacity improvements necessary to accommodate the peak hour wet weather flows anticipated under buildout of the General Plan.

INF-2.1.A1 Prepare a master plan for sewer and update as needed, to identify current deficiencies and quantify needs based on development patterns established in the General Plan. Identify necessary improvements and establish priorities for these improvements. Issues should include:

- (a) Identify the most reliable and cost effective disposal options.
- (b) Comprehensive analysis of the overall collection system.
- (c) Evaluation of feasibility of alternative rehabilitation techniques.
- (d) Infiltration and inflow (I/I) analysis and effective ways to minimize I/I.
- (e) Water conservation measures.

INF-2.1.A2 Improvements that increase the capacity of the City's Water Reclamation Plant shall undergo environmental analysis pursuant to the California Environmental Quality Act, and shall, at a minimum, consider heights limits in proximity to the Municipal Airport, effects on the underlying water aquifer, effects on special status wildlife habitat, and effects of secondarily treated effluent on the San Francisco Bay and Arroyo Las Positas.

INF-2.1.A3 In areas of high water table, construction materials and techniques shall be used so as to minimize potential inflow and infiltration. Such techniques may include use of water pipelines that have joint designs capable of withstanding higher pressure than standard sewer pipes, using plastic pipe with welded joints, or other pipe types approved by the City.

INF-2.1.A4 Enforce the City code requiring all properties with plumbing, located within 200 feet of wastewater sewer, to connect to the public sewer system.

INF-2.1.A5 Sewer mains proposed to be constructed parallel to and within creek corridors shall be located within a dedicated easement along the outer boundary of the corridor to avoid impacting creek habitat.

INF-2.1.A6 Design of the sewer collection system shall seek to minimize crossings of wetlands or creeks. Sewer mains that cross existing or proposed creeks should be located at road crossing, use sewer bridges to span the creek at crossing where possible (depending on depth of grade), or go under the creek.

INF-2.1.A7 Installation of the sanitary sewer system should occur concurrent with construction of new roadways to maximize efficiency and minimize disturbance due to construction activity.

INF-2.1.A8 Sections of impermeable backfill (“trench dams”) should be constructed across sewer trenches at the boundaries of preferential flow paths to prevent groundwater flows within the preferential flow paths from being diverted along the alignment of the sewer path.

INF-2.1.A9 The City shall utilize sanitary sewer connection fees collected from new development and elsewhere within the City to construct necessary improvements to the City’s trunk sewer mains (as identified in the latest master plan prepared for sewer) in order to accommodate anticipated cumulative development.

Storm Water:

INF-3.1.P1 Design local storm drainage improvements to carry appropriate design year flows resulting from build out of the General Plan.

INF-3.1.A1 Complete a new master plan for storm drainage facilities and update as needed, in order to accurately evaluate the storm drainage flows and determine appropriate facility improvements consistent with the General Plan.

INF-3.1.A2 Prioritize storm drainage improvements recommended in the storm drainage master plan and implement the projects through the City’s Capital Improvement Program.

INF-3.2.P1 All new development projects shall be responsible for constructing a storm water collection system and contributing storm water collection fees to construct additional necessary facilities. These fees include the City storm drain fees as well as Zone 7 regional storm drainage fees.

INF-3.2.P2 Criteria used to design the storm water system shall be in the master plan prepared for storm drainage.

INF-3.2.P3 The City shall take all necessary measures to regulate runoff from urban uses to protect the quality of surface and ground-waters and other resources from detrimental conditions.

INF-3.2.P4 Installation of storm water collection systems should occur concurrently with construction of new roadways to maximize efficiency.

INF-3.2.A1 Revise the Subdivision Ordinance and other Municipal Codes to reduce the creation of impermeable surfaces in new development. Examples of strategies to reach this goal might include:

- (a) Requiring the use of vegetative swales (biofilters).
- (b) Requiring detention/infiltration basins.

INF-3.2.A2 Existing property owners shall be encouraged, or required as appropriate, to reduce storm water runoff by reducing impermeable surfaces.

INF-3.3.P1 Stream modifications should only be allowed for development outside the floodway, to better contain flood flows, re-route storm water to restore creek conveyance capacity and enhance groundwater recharge, stabilize creek beds and banks and control erosion, remove sediment and debris, provide public access for maintenance and emergency vehicles, provide for trails and recreational facilities, restore creek natural habitat and wetlands areas and provide for water filtration.

INF-3.3.P2 Any stream modifications and flood control structure improvements shall be done in accordance with appropriate engineering design, resource agency approvals, and current environmental restoration Best Management Practices.

INF-3.3.P3 Recreational opportunities adjacent to the arroyos and creeks shall be incorporated where possible. Primarily bikeways and trails shall be located adjacent to the arroyo and creek corridors as outlined in a master plan prepared for bikeways and trails.

INF-3.3.P4 Arroyos shall not be channelized or concrete lined. Modifications should only be allowed for public safety reasons. Flood control improvements such as capacity enhancement shall be done in accordance with appropriate engineering design and current environmental best practices.

INF-3.3.P5 New development shall be required to incorporate appropriate measures to minimize the impacts of storm water runoff to local creeks and channels.

INF-3.3.A4 The City shall work with other agencies to determine the appropriate ownership and long-term maintenance responsibilities for each creek and arroyo property or easement.

Public Utilities:

INF-4.1.P1 The City shall ensure that utilities, including electricity, natural gas, telecommunications, and cable, are available or can be provided to serve the projected population within the City in a manner which is fiscally and environmentally responsible, aesthetically acceptable to the community, and safe for residents. However, the ultimate responsibility for ensuring that the utilities are available to support new development rests on the sponsor of proposed projects.

INF-4.1.A1 Assess the adequacy of public utilities in existing developed areas, and support needed improvements to service developing portions of the City.

INF-4.2.P1 The energy-efficiency of proposed development shall be considered when land use and development review decisions are made.

INF-4.2.P2 Process permits and approvals for utility expansions in a fair and timely manner in accordance with the expansion of new development.

INF-4.2.P3 The City's design review shall consider solar access, siting structures to maximize natural heating and cooling, and for landscaping to aid passive cooling protection from prevailing winds and maximize year-round solar access.

INF-4.2.P4 Require the placement of personal wireless communication facilities in a manner that minimizes the adverse impacts on adjacent land uses. New freestanding facility towers and structures should only be considered when no feasible alternative exists or when visual intrusion would be less than that associated with placement on an existing structure or building.

Solid Waste:

INF-8.1.P1 The City will seek to meet or exceed State requirements with regard to waste diversion and recycling.

INF-8.1.P2 The City shall seek to meet the Alameda County Measure D waste diversion goal.

INF-8.1.P3 Livermore's businesses shall be encouraged to expand their recycling efforts and to reduce packaging.

INF-8.1.A1 Implement source reduction and recycling programs to minimize waste at the point of manufacture or use.

INF-8.1.A2 Seek ways to incorporate on-site storage facilities for recycled materials as buildings are improved, altered or expanded.

INF-8.1.A3 Work with the Livermore Area Recreation and Parks District to expand recycling of glass and aluminum at LARPD facilities.

INF-8.2.A1 Encourage the purchase and use of post-consumer recycled content products and other recycled materials in all City operations.

INF-8.2.A2 Seek ways to implement State requirements for recycled container enclosures for new, altered, or expanded facilities.

INF-8.2.A3 Encourage LVJUSD participation in reuse and recycling programs.

INF-8.2.A4 In all City operations, encourage the development of procedures and purchase of equipment that result in recycling products rather than sending them to the landfill.

Open Space and Conservation Element

OSC-7.1.P1 The City shall promote the construction of energy-producing wind turbines in the vicinity of Livermore.

OSC-7.1.P2 The City shall approve only those development proposals which are designed and located to minimize energy consumption and adverse impacts on air, land and water resources.

Economic Development Element

ED-3.2.P4 Recover the direct and indirect costs of providing services and facilities through a combination of fees, exactions, and dedications.

ED-3.2.P5 In order to achieve explicit economic development goals (as outlined in this element or a subsequently adopted Economic Development Strategy), the City Council has the discretion to make a financial contribution for all or part of new commercial or industrial development's share of public services or infrastructure. The City Council shall approve a financial contribution to development only after making findings that:

- The development will benefit the City and is reasonably expected to generate one million dollars or more of annual sales tax revenue to the City, beginning within three years after operations begin. This must be based on substantial evidence presented in public to the Council;

- The financial contribution of the project is secured by an appropriate form of financial security, if any reimbursement is involved;
- Specific, identified City or other funds are available to make the contribution; and
- The net financial benefit to the public is substantially larger than the City's financial contribution.

b. Downtown Specific Plan. In Chapter 9, Public Utilities and Infrastructure, the Downtown Specific Plan contains the following policies addressing wastewater, water, and storm drainage services.

Water Service Improvement Policies:

Water Policy 1: Water service to all properties shall provide sufficient water quality, pressure and reliability in order to meet all needs including fire protection flow standards.

Water Policy 2: The water system will require additional water lines, looping, upsizing or rerouting of some of the distribution facilities, storage and pump stations, as well as augmentation of basic water supply from Zone 7. More intense development demands more service and may push an individual area over the threshold for upsizing facilities.

Water Policy 3: Developers will need to provide a "fair share" cost associated with the design and construction of water improvements in a manner acceptable to the City Engineer and Cal Water, based on Cal Water's Water Management Plan recommendations as amended from time to time to time, and/or other water studies.

Sanitary Sewer Policies:

Sanitary Sewer Policy 1: All properties will be served by sewer lines and sewer mains which are of adequate size and design to move sewage to the City Water Reclamation Plant in a sanitary and reliable manner.

Sanitary Sewer Policy 2: The City shall provide Capital Improvement Program funding to implement those projects identified in the latest Sewer Water Master Plan and its responsibilities under policy 1 above. These improvements shall be funded by the Sanitary Sewer Connection Fees.

Sanitary Sewer Policy 3: For new developments, hydraulic calculations should be submitted as a part of the building permit plan check process to determine if the existing sewer mains serving the proposed development have available capacity for its additional demands. If capacity is not available, sewer mains of adequate size should be designed and constructed in a manner acceptable to the City Engineer. For example, present six-inch diameter lines may need to be increased to eight- or ten-inch lines.

Storm Drainage Policies:

Storm Drainage Policy 1: The storm drainage system should be able to prevent uncontrolled storm water runoff in all areas of Downtown, under both existing and future conditions.

Storm Drainage Policy 2: The City shall complete a new Storm Water Master Plan and update as needed, in order to accurately evaluate the storm drainage flows and determine appropriate facility improvements consistent with the Specific Plan and General Plan.

Storm Drainage Policy 3: The City shall prioritize storm drain improvements recommended in the Storm Drain Master Plan and implement them through the City's Capital Improvement Program. These improvements shall be funded using funds from the Storm Water Impact Fee and the General Fund.

Storm Drainage Policy 4: Developments will need to provide the design and construction of storm drainage improvements in a manner acceptable to the City Engineer based on adopted Master Plans, Development Plan Check and Procedures Manual, City Standards and Details. These improvements involve connecting on-site drainage to City storm drain systems.

3. Impacts and Mitigation Measures

This subsection analyzes potential adverse impacts related to *utilities, infrastructure and energy* of the proposed project. It begins by establishing the thresholds of significance for impacts, and then evaluates the two elements of the proposed project: the Draft General Plan and the Downtown Specific Plan. Where potentially significant impacts of the proposed project are found, mitigation measures are recommended.

a. Criteria of Significance. Implementation of the Livermore Draft General Plan and Downtown Specific Plan would have significant impacts to utilities and energy if the project would:

Water Supply and Infrastructure:

- Have insufficient water supplies available to serve the project from existing entitlements and resources, requiring new or expanded entitlements;
- Require the extension or substantial reconstruction of major water lines to serve new development.
- Create substantial demand for water beyond the existing or planned City water supply, requiring additional water storage capacity.
- Conflict with the use, operation, or maintenance of an existing utility line, or increase the risk of accidental damage to an existing utility line.

Wastewater:

- Result in the need for extension of new wastewater service into a currently un-serviced area;
- Result in an increased demand for wastewater conveyance or treatment that requires construction of new wastewater treatment facilities, or expansion of existing facilities, the construction of which could cause significant environmental effects;
- Result in a determination that there is inadequate wastewater treatment or disposal capacity to serve the projected demand, in addition to existing service commitments;
- Conflict with current infrastructure plans of wastewater service providers;
- Exceed the wastewater treatment restrictions of the Regional Water Quality Control Board.

Storm Drainage:

- Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
- Generate additional storm water runoff that would exceed the existing or planned capacity of the City's storm drain system and require the construction or substantial expansion of existing facilities.

- Conflict with the use, operation, or maintenance of an existing utility line, or increase risk of accidental damage to an existing utility line

Other Utilities:

- Require the substantial expansion or construction of utility infrastructure, which would result in significant physical impacts.
- Conflict with the use, operation, or maintenance of an existing utility line, or increase the risk of accidental damage to an existing utility line;
- Result in a substantial decrease in remaining available space at a landfill;
- Interfere with the accomplishment of waste diversion goals mandated by the California Integrated Waste Management Act (CIWMA);
- Use fuel or energy in a wasteful manner;
- Result in an increase of the City's dependence on non-renewable energy resources; or
- Require substantial increases on peak and base period demand for electricity and other forms of energy and additional capacity of local or regional energy supplies.

b. Impacts and Mitigation Measures of the Draft General Plan. This section evaluates potential impacts to utility and energy systems associated with the implementation of the Draft General Plan and identifies mitigation measures to address these impacts, as appropriate. The Downtown Specific Plan is included within this analysis as services would generally cover the Downtown plan area. Impacts specific to the Downtown Specific Plan are identified in subsection c below.

(1) Less-than-Significant Impacts of the Draft General Plan. Following is a summary of the less-than-significant impacts that would result from implementation of the Draft General Plan.

Water Supply. Zone 7 uses a current buildout population estimate for the City of Livermore of 95,800.¹ Prior to 2002, Zone 7 had planned to supply water to the City for an estimated maximum population of 110,495. The buildout estimate was decreased in 2002 due to the City's decision to remove North Livermore from its 1976 General Plan. Zone 7 currently serves a total population of approximately 183,000 people. In the next 20 to 30 years, Zone 7 estimates its service population to increase to approximately 253,000 persons, an 8 percent decrease from the buildout population of 275,000 persons that Zone 7 used in its planning efforts prior to 2002. This decrease is primarily due to the reduction in projected population associated with North Livermore. Due to this decrease in the projected buildout population, there is a corresponding decrease in projected treated water demand on Zone 7. The current estimate for treated water demand within Zone 7 is 58,900 acre-feet. This is a 5 percent decrease from Zone 7's previously projected ultimate treated water demand of 61,700 acre-feet. Table IV.D-1 summarizes the projected water demand on Zone 7. Zone 7 expects to meet the anticipated treated water demands of the Livermore Amador Valley and reviews the demands and funding requirements annually through various planning, projection and funding documents.

¹ Zone 7, 2002. Municipal and Industrial Connection Fee Program Report, December.

Water demand factors were applied to the land use types projected for the Draft General Plan using the City of Livermore's Facilities Planning Guidelines prepared in August 1995. The more conservative range factor was used for the water demand projection. Based on preliminary water demand projections for the Draft General Plan, it is estimated that the water demand attributable to buildout will be approximately 4.0 million gallons per day (mgd). The City's previously projected water demand (attributable to future buildout that included North Livermore), was estimated at 5.05 mgd, resulting in a water demand reduction of approximately 1.05 mgd. Zone 7 indicated that it was capable of providing the projected water demands of the City at the higher demand estimate. Therefore, Zone 7's calculations and adopted plans and contracts for meeting the City's and California Water Service Company's wholesale water requirements under the reduced demands associated with the Draft General Plan would be adequate to serve the Draft General Plan buildout demand, and no significant impacts would result associated with water demand.

Water Storage. Development and population changes envisioned by the Draft General Plan and Downtown Specific Plan will create demand for water beyond the existing or planned City water supply, requiring additional water storage capacity. The California Water Service Company service area will be affected by new development within the following change areas (described in Chapter III, Project Description): dispersed commercial/industrial sites, vacant I-580 commercial sites, residential infill parcels, and the Downtown area. California Water Service Company has sufficient existing water supply and storage for development already projected to occur in these change areas. To mitigate any storage deficiencies, the City will require new development to contribute financially and/or construct any improvements or modifications to the California Water Service Company's system required by the development per policies INF-1.1.A8, ED-3.2.P4 and P5.

However, the City of Livermore's Municipal Water Service does not have sufficient existing water storage to adequately serve the development and population changes envisioned by the Draft General Plan. The change areas identified in the Draft General Plan shift some of the currently anticipated water storage requirements to different water service pressure zones, resulting in the need to add additional storage reservoirs to pressure zones that are different from the ones envisioned under the 1995 Water Master Plan. The City of Livermore has undertaken a new Water Master Plan Study to determine the new storage requirements, make recommendations for capital improvements and prioritize these improvements. Staff anticipates the new Water Master Plan to be completed and adopted by the City Council by the end of 2003. A new Water Connection Fee Study will be completed after the Water Master Plan is approved to determine the fee structure required to provide funding for the improvements recommended by the Master Plan. Through implementation of Draft General Plan INF-1.2.P1 and INF-1.2.P2, the City would ensure that water storage is available or can be provided to serve the projected population within the City limits, and no significant impacts would result.

Extension and Reconstruction of Water Lines. Implementation of the Draft General Plan and Downtown Specific Plan would result in the need to extend or substantially reconstruct major water lines to serve new development. The project will require major extensions and/or substantial reconstruction of water lines to serve new development in a number of change areas. The change areas most affected by this impact are the: dispersed commercial and industrial sites, the Adventus site, the Ferrari site, the East Side areas (E-1 and E-3), the Greenville BART Transit Oriented Development (TOD) north of I-580, the West Side area (W-3), residential infill parcels, and the Downtown area. Most of these areas anticipate intensifying or adding higher density residential

Table IV.D-1: Projected Zone 7 Water Demand

Treated Water Demand, Measured in Acre-Feet^a										
	Delivery Request					Projected				
	2002	2003	2004	2005	2006	2010	2015	2020	2025	2030
Dublin (DSRSD)	8,240	8,640	8,990	9,360	9,730	11,100	12,360	12,940	13,150	13,200
Dougherty (DSRSD)	1,180	1,540	1,900	2,260	2,620	3,500	4,560	4,560	4,560	4,560
Livermore ^b	14,810	15,390	16,030	16,680	17,330	18,920	20,470	22,000	22,000	22,000
Pleasanton	15,490	16,110	16,760	17,430	18,130	18,170	18,800	18,800	18,800	18,800
Other ^c	320	320	320	320	350	350	350	350	350	350
Total	40,040	42,000	44,000	46,050	48,160	52,040	56,540	58,650	58,860	58,910

^a This analysis does not include groundwater pumping quotas. Treated water demands are rounded to the nearest 10 acre-feet.

^b Livermore includes California Water Service Company.

^c "Other" includes Dublin Housing Authority, EBRPD, LARPD, LLNL, VAMC and Wente (Treated).

Source: Zone 7, 2002 Municipal and Industrial Connection Fee Program Report.

housing that will likely be multi-story, resulting in the requirement for reconstructing the water distribution system in some locations to provide for this higher water demand. Other change areas, most notably the Greenville BART TOD, will require the extension of water lines to serve the areas not currently served by the City's municipal water system or the California Water Service Company.

To reduce the environmental impacts of water infrastructure development, implementation of the following policies and actions would reduce impacts related to the extension and reconstruction of water lines to a less-than-significant level: INF-1.1.A7 and A8, INF-1.2.P1 through P9 and ED-3.2.P1 by requiring that the water distribution and storage system be sized to serve projected development under the Draft General Plan, and requiring new development projects to be responsible for constructing a potable water conveyance system and contributing water connection fees to construct additional storage and distribution facilities, as necessary.

Wastewater Collection Network. The extent of new growth and development as proposed in the Draft General Plan would require expansion of the existing City wastewater collection network into areas currently not served. There are limited wastewater collection and conveyance systems in the northeastern portion of the City in the vicinity of the proposed TOD and north of I-580 in the vicinity of Portola to serve the proposed General Plan development in these areas. These areas will require extensive wastewater collection and conveyance systems in order to support the planned development proposed in the Draft General Plan. Development pursuant to the proposed Draft General Plan will require construction of new wastewater collection and conveyance systems in areas where there are currently no facilities, and either parallel or replacement of existing pipes in the Downtown area. Generally, the City's sewer system utilizes gravity drainage and minimizes pumping to convey flows to the City's Water Reclamation Plant, as this is considered to be the most cost-effective, easy to operate, and reliable system.

The proposed intensification of development within the Downtown will require upsizing or replacement of sewer mains to accommodate the anticipated growth outlined in the proposed Downtown Specific Plan. A majority of the sewer mains which are anticipated to require improvements have already been identified for replacement in the City's Sewer Master Plan. However, these sewer mains

will need to be upsized to accommodate additional flows anticipated by intensified development proposed in the Downtown Specific Plan. Significant improvements to this system would be needed to serve the ultimate buildout of the Draft General Plan and Downtown Specific Plan.

Future sewer alignments will be determined based on specific project grading, the location of creeks and proposed street alignments. Final alignment of the major sewers, as well as sizes and alignments of sewer laterals needed to serve new development, will be determined as part of final development plans for specific projects. The construction of these sewer lines could result in adverse environmental impacts. Implementation of the following policies INF-2.1.P5 through P11 and A17 through A19 would reduce the environmental impacts associated with construction of sewer infrastructure to a less-than-significant level through:

- requirements for demonstrating adequate downstream capacity;
- requiring that the design for new sewer lines conforms to the master plan and facilities planning guidelines; and
- requiring the sewer system to be constructed in such a manner as to minimize potential environmental effects.

Water Reclamation Plant Expansion. The extent of new growth and development as proposed in the Draft General Plan would increase the demand for wastewater treatment at the City Water Reclamation Plant (WRP), exceeding the current capacity of the plant.

The projected volume of additional wastewater flow resulting from buildout of the Draft General Plan is estimated to be approximately 2.92 million gallons per day (mgd) of average dry weather flow (ADWF), and approximately 7.12 mgd during peak hour wet weather flow (PWWF) conditions. These projected wastewater flows have been estimated for ultimate buildout based on separate unit demand factors and land use projections as proposed under the Draft General Plan, as shown below on Table IV.D-2. Unit wastewater demand factors were estimated for each land use type based on the City of Livermore’s Facilities Planning Guidelines (August 1995). The resultant demand factors were then multiplied by the projections of land use (in acres), to obtain the projected ultimate wastewater demand.

Table IV.D-2: Estimated Increased Wastewater Flow Resulting from the Proposed Project

	Units	Acres	Gallons Per Day (GPD)	Average Dry Weather Flow (mgd) ^a
Residential				
Single-Family	2,067	450	210	0.52
Multi-Family	9,769	500	105	1.13
<i>Subtotal</i>				1.65
Commercial			GPD/Acre	
Office	7,123,100	470	800	0.47
Retail	2,472,600	165	800	0.16
Industrial	8,107,500	530	1,000	0.64
<i>Subtotal</i>				1.27
Schools			GPD/Acre	
K-12	5,800		20	0.00
Parks/Open Space				
Parks	–	100	10	0.00
Total Wastewater Generation				2.92

^a ADWF equals Average Daily Wastewater flow plus anticipated dry weather inflow and infiltration (200 gpd/ac).

Source: City of Livermore, Rosy Ehlert, 2003.

As shown in Table IV.D-3, the additional wastewater flow resulting from buildout of the proposed Draft General Plan, when added to the current (year 2003) flows at the treatment plant, produce approximately 10.03 mgd average dry weather flow (ADWF), and 25.6 mgd peak hour wet weather

flow (PHWWF). These projected flow volumes exceed the currently rated capacity of the treatment plant (8.5 mgd ADWF, 15.5 mgd peak hour wastewater flow plus wet weather inflow and infiltration). In order to accommodate these projected wastewater flows, improvements at the Water Reclamation Plant (WRP) are needed. The 2003 WRP average dry weather flow capacity of 8.5 mgd would have to be increased by approximately 1.53 mgd to accommodate wastewater flows from all anticipated development as proposed under the Draft General Plan. The WRP peak hour wet weather flow capacity of 15.5 mgd would have to be increased by approximately 10.1 mgd.

Table IV.D-3: Wastewater Flows at the City of Livermore Water Reclamation Plant (mgd)

	ADWF ^a	PHWWF ^b
Estimated 2003 City of Livermore Flow	6.50	17.30
Projected Flows from Approved But Not Yet Built Projects ^c	0.61	1.16
Projected General Plan Flows ^d	2.92	7.12
Total Wastewater Flow	10.03	±25.60
Reported Current Livermore WRP Capacity	8.50	15.50
Required Additional Livermore WRP Capacity	1.53	10.10

^a ADWF = average dry weather flow

^b PHWWF = peak wet weather flow. PHWWF is measured as a function of million gallons per day, but actually occurs only during the peak period, which may be only an hour or two hours in duration.

^c City of Livermore Planning Division. Projected includes existing commitments of approved but not built development, unoccupied buildings, and the Veterans Administration Hospital.

^d Per Table IV.D-2.

Source: City of Livermore, Rosy Ehlert, 2003.

The City has previously anticipated the need for improvements at the WRP based on previously prepared growth projections. These planned improvements are designed to increase the average dry weather flow capacity of the facility by an additional 2.6 mgd, resulting in a total treatment capacity of 11.1 mgd ADWF, consistent with the influent limitations of the Joint Powers Agreement.² These improvements would include additional influent and primary effluent pumping capacity, headworks improvements, aeration tank modifications, and solids handling improvements, including a new digester and a sludge holding tank. The anticipated increase in treated effluent storage, combined with other facility improvements, are expected to be capable of providing adequate peak wet weather flow capacity at the facility.

The City of Livermore has recently enlarged the holding basins at the WRP to improve the capacity of the plant to handle peak hour wet weather flows. The holding basin capacity is estimated to be approximately 11.0 million gallons. The peak hour wet weather capacity of an expanded treatment plant with the capacity of 11.1 mgd average dry weather flow has not been defined, but is estimated to be approximately 22 mgd. Thus, the combination of 22 mgd of peak hour wet weather flow capacity at the treatment plant plus additional storage capacity is expected to be necessary to handle the projected 25.6 mgd of peak hour wet weather flows. Optimizing treatment works and storage has not been addressed, but would serve to identify the most economical system improvements.

Implementation of Draft General Plan policies INF-2.1.P3 through P-5 would limit development to either that which could be supported by the existing wastewater treatment plant, or that which could be supported by the expansion of existing facilities as necessary to accommodate such development. However, the City's Water Reclamation Plant Master Plan (last updated in 2001) anticipates construction of improvements that are designed to increase the average dry weather flow capacity of

² In May 1997 the LAVWMA member agencies (including Livermore), executed Principles of Agreement that defined key aspects of the proposed pipeline expansion project. These Principles of Agreement have been incorporated into an amended and restated Joint Exercise Powers of Agreement (Joint Powers Agreement) that govern LAVWMA activities and defines the influent limitations, service area, pipeline configuration and size, cost sharing, status of existing projects, capacity exchanges and wet weather flows.

the facility by an additional 2.6 mgd, resulting in a total treatment capacity of 11.1 mgd ADWF consistent with the influent limitations of the Joint Powers Agreement. These improvements would increase the capacity of the WRP to levels that would exceed the projected demand of the proposed Draft General Plan. Additionally, the planned expansion improvements to the City WRP, described previously, may lead to potential environmental impacts at the WRP facility site. Implementation of policies and actions INF-2.1.P3, P4, A1, A2, A3, and OSC-1.1.A1, OSC-1.2.P1 and P8 would reduce impacts associated with expansion of the WRP to a less-than-significant level by requiring the expansion to be sized to only accommodate Draft General Plan buildout and evaluating and mitigating potential environmental effects of a WRP expansion.

Storm Drainage. Employment and housing growth projected under the Draft General Plan and Downtown Specific Plan could generate additional storm water runoff that would exceed the existing or planned capacity of the City's storm drain system and require the construction or substantial expansion of existing facilities. The change area most affected by this impact is the Greenville BART TOD north of I-580. The Greenville BART TOD, will require the extension of water lines to serve these areas not currently served by the City's storm water collection system and is not included in the current Storm Drainage Master Plan.

The Draft General Plan and Downtown Specific Plan contains policies and actions including, INF-3.1.P1, INF-3.1.A1, INF-3.2.P1, and INF-3.3.P1, to ensure that development associated with the project would not conflict with the use, operation or maintenance of any existing storm drainage lines or increase risk of accidental damage to an existing line. Additionally, implementation of policies INF-3.2.P1, P2, and P4 would mitigate this impact to a less-than-significant level:

Implementation of the proposed project is not expected to conflict with the use, operation, or maintenance of an existing utility line, or increase risk of accidental damage to an existing utility line.

Electricity, Gas, and Telecommunications. Development and population changes envisioned by the Draft General Plan are not expected to have a significant impact on the provision of electricity, gas, and telecommunications services. Through implementation of Draft General Plan policy INF-4.1.P1, the City would ensure that utilities, including electricity, natural gas, telecommunications, and cable, are available or can be provided to serve the projected population within the City limits. In addition utility providers of electricity, natural gas, and telephone services are regulated by the Public Utilities Commission (PUC) and are mandated to extend infrastructure and supply these utilities if the service is requested. Ensuring adequate provisions of utilities are available for future demand is accomplished utilizing a variety of planning tools that include the coordination between utility providers and City staff to establish past and present growth trends and plan for future utility infrastructure improvements. Currently, PG&E is implementing the Tri-Valley 2002 Capacity Increase Project (please refer to Chapter 6, Infrastructure and Utilities, in the MEA for a complete description) to address the increased demand for electricity associated with planned future growth. With the capacity increase project and the ability to transfer electricity as needed from adjacent substations with additional capacity, PG&E has stated that future demand from new housing and jobs projected under the Draft General Plan will be met.³ PG&E estimates future natural gas needs by performing a five-year projected growth analysis every three years to assess demand increases and identify the potential

³ Jordan, Roger, 2003. Planning Engineer, PG&E. Personal communication with LSA Associates Inc., April 18, 2003.

need for infrastructure improvements. Performing projected growth analysis on a three-year cycle allows PG&E to anticipate future increases in demand and make necessary improvements to meet demand. PG&E has stated that they have the capacity to meet the future demand for natural gas in the City of Livermore over the next 20 years.⁴

Based on concerns stemming from recent Statewide experiences with energy supplies, distribution, use, and conservation, the Draft General Plan provides goals, policies and strategies in the Draft General Plan that supports energy conservation and renewable energy sources. Implementation of policy OSC-7.1.P1 would assist in the provision of energy for the anticipated future demand by promoting construction of energy-producing wind turbines within the vicinity of the City. Policies OSC-7.1.P2, INF-4.2.P1, and INF-4.2.P3 would promote energy conservation through design review and approval of projects that incorporate energy conservation methods and advanced energy technology into the project design. Implementation of these policies within the Draft General Plan would help to minimize the City's dependence on non-renewable energy resources and increase energy efficiency. No significant impacts associated with energy supply is expected to result from implementation of the Draft General Plan.

Cable services within the City of Livermore are provided by Comcast, which has a 2003 franchise agreement with the City for cable communication services, including television cable. As part of planned and executed cable infrastructure upgrades from 2000 to 2003, including the installation and use of fiber optics within the Livermore Planning Area, Comcast anticipates being able to provide cable communication services to the future population and increased demand projected under the Draft General Plan.⁵ Telephone services within the City are provided by SBC Pacific Bell (SBC). SBC implements an ongoing monitoring program to identify changes in demand over time and makes infrastructure improvements to respond to any increases. SBC has stated that they will be able to provide telephone service to meet the increased demand associated with implementation of the Draft General Plan and no significant impacts would result.⁶

Solid Waste. The Draft General Plan supports efforts and measures to maximize source reduction and recycling within the City. Implementation of policies and actions INF-8.1.P1 through A3 and INF-8.2.A1 through A4 provided in the Draft General Plan, would decrease the amount of solid waste generated in the City thereby increasing the life span of the Vasco Road Sanitary Landfill and require citywide participation in source reduction and recycling efforts. The landfill is currently estimated to have capacity to accept solid waste until the year 2024 if contributing municipalities grow at an annual growth rate of approximately three percent.⁷ The Draft General Plan has set a growth range of 140 to 700 units per year based on a 5 to 2.5 percent of 2002 housing units (see LU-2.1.P6). The Vasco Landfill retains ownership of 102 additional acres of land that has been set aside to facilitate future expansion of the landfill, if required. The Vasco Road Sanitary Landfill is under contract with the City of Livermore to provide solid waste disposal to the year 2024 and has the option of contract

⁴ Sumeet Singh, 2003. Senior Gas Distribution Engineer. Personal communication with LSA Associates Inc., April 18, 2003.

⁵ James Dameron, 2003. Comcast Repair Tech and Service Lead. Personal communication with LSA Associates Inc., April.

⁶ Valerie Quan, 2003. SBC Pacific Bell Planning Engineer. Personal communication with LSA Associates Inc., April.

⁷ Eric Horton, 2003. Vasco Landfill General Manager. Personal communication with LSA Associates Inc., April.

renewal, thereafter.⁸ Based on these factors and considerations, the amount of development proposed by the Draft General Plan would neither substantially reduce the available space at the Vasco Road Sanitary Landfill nor interfere with compliance of the California Integrated Waste Management Act (CIWMA). No adverse impacts associated with solid waste disposal are expected to occur.

(2) **Significant Impacts of the Draft General Plan.** Significant impacts related to the provision of utilities are evaluated below.

Impact INF-GP-1: The extent of new growth and development as proposed in the Draft General Plan and Downtown Specific Plan would exceed the City of Livermore’s wastewater disposal capacity. (S)

Average Dry Weather Flow. The projected Draft General Plan average dry weather flow of treated effluent needing disposal is estimated to be approximately 10.03 mgd, as shown on Table IV.D-3, including existing flows, flows from approved but as yet unbuilt projects and flows resulting from buildout under the Draft General Plan and Downtown Specific Plan. Additional wastewater disposal opportunities would be needed to accommodate these average dry weather flows.

Average Wet Weather Flows. Based on historical wet season flow rates at the WRP, average annual flows have been shown to be on the order of roughly 25 percent higher than average dry weather flows when averaged for a daily period. The average dry weather flows occur over the approximate seven month dry weather period (April through October). The difference between the average dry weather flows over a seven month period and the annual average flows over the 12 month year are attributed to the five month wet weather period (November through March). Assuming that the WRP is improved to provide adequate equalization time to distribute peak wet weather flows throughout a daily period, the average wet season wet weather flows under the total cumulative flows within the City would be approximately 12.26 mgd. This cumulative average wet weather flow would exceed the City’s current contractual limit in the existing LAVWMA export facilities of 8.728 mgd, and could not be fully disposed of through LAVWMA. Additional wastewater disposal opportunities would be needed. These projected wastewater disposal needs are shown in Table IV.D-4.

Table IV.D-4: Additional Wastewater Disposal Needs of the Proposed Project

	Average DWF	Annual Average Flow ^a	Average Wet Season Flow ^b
Reported Current City of Livermore Flow	6.40	6.50	7.97
Projected Flows from Approved but Not Yet Constructed Projects	+0.61	0.55	0.61
Project Flows	+2.92	3.28	+3.68
Total Wastewater Flow (Buildout)	10.03	10.33	12.26
City’s Current LAVWMA Export Pipeline Capacity	8.73	--	8.73
Additional Disposal Capacity Required	1.53		3.53

^a Annual average flow equals 1.095 times average dry weather flow.

^b Average wet season wet weather flow represents the annual average flow over a 12-month period, less the average dry weather flow over the 7-month dry period, as averaged over the remaining 5-month wet season.

Source: Source: City of Livermore, Rosy Ehlert, 2003.

To accommodate increased flows from the proposed General Plan buildout, the City must either:

- Acquire additional capacity in the LAVWMA pipeline through participation in the ongoing LAVWMA export pipeline expansion project.

⁸ Ibid.

- Utilize an alternative means of effluent disposal; and/or
- Restrict future development such that the effluent disposal capacity is not exceeded.

In light of the City's initial rejection of the ballot measure (Measure Q in November 1998) which would have committed the City to participation in the LAVWMA expansion project,⁹ alternative disposal solutions are the only currently available option for accommodating buildout of the City's General Plan. However, nothing precludes the City Council from placing this issue again before the Livermore voters to reconsider the LAVWMA buy-in option.

Implementation of Draft General Plan policies INF-2.1.P1 through P5 would limit development to either that which could be supported by current wastewater disposal methods, or that which could be supported by increased wastewater disposal strategies that are designed and programmed to accommodate the growth and development anticipated under the Draft General Plan and Downtown Specific Plan. Potential wastewater disposal strategies and their potential environmental effects are described below.

LAVWMA Expansion Disposal Alternative. LAVWMA is currently increasing its wastewater disposal capacity through an export pipeline expansion project to accommodate future growth and wet weather flows. Completion of the project will expand LAVWMA's average dry weather flow disposal capacity from 21 mgd to 41.2 mgd through a combination of replacement pipelines, parallel pipelines, rehabilitation of the existing export pipeline, and construction of new pumping stations.

The LAVWMA member agencies adopted a Joint Exercise of Powers Agreement (JPA) which defines the primary elements of the project. These issues include limitations, service areas, pipeline configuration and size, cost sharing, status of existing projects, capacity exchanges, and wet weather flows. Dublin San Ramon Services District (DSRSD) and the City of Pleasanton are currently moving forward with this expansion project, but the City of Livermore voted not to participate. However, according to the LAVWMA Joint Powers Agreement, Livermore has until November 2005 to buy capacity in the LAVWMA expansion pipeline up to the City's share of the peak wet weather flow capacity. This buy-in would have to be approved through a subsequent ballot measure, and if passed, the City would be required to pay its appropriate share of the LAVWMA expansion costs, including accrued interest costs for the capacity.

Effluent from the Livermore WRP flows by gravity via a 6.3-mile trunk line (the Livermore Interceptor) to the LAVWMA storage and pump facilities. The gravity trunk line has a capacity of 9.2 mgd. To accommodate expanded export capacity, a new pump station would need to be built at the WRP to pressurize the trunk line and increase capacity to 12.26 mgd (the average wet season flow as indicated in Table IV.D-4).

The existing Livermore Interceptor pipeline is suitable for operation at a higher-than-existing pressure with a new pump station, but may need selective pipe thrust restraints, reinforcements or replacement of pipe joints.

The environmental impacts associated with the entire LAVWMA expansion project, including a new Livermore pump station and upgraded trunk line, are fully described and analyzed in the *LAVWMA*

⁹ City participation in the LAVWMA expansion project may be placed on the ballot in subsequent years until November 2005.

*Export Pipeline Facilities Project EIR.*¹⁰ Since these elements of the LAVWMA expansion project have already undergone CEQA review, no additional environmental review for these elements would be necessary. However, given that the voters of the City of Livermore rejected participation in the LAVWMA expansion project in 1998, implementation of this alternative could only occur if the City's buy-in to the expansion program were to be approved through a subsequent ballot measure. If such a measure were to pass, the City would be required to pay its share of the LAVWMA expansion costs, including accrued interest costs for the capacity.

Reclamation with North Livermore Storage and Irrigation. An alternative wastewater disposal strategy could be developed to meet the cumulative wastewater disposal needs of the City at buildout that would include increased water reclamation, storage and disposal via irrigation in North Livermore. The description of this strategy includes several components:

- Under this strategy, the City would continue to dispose of wastewater flows through LAVWMA within its currently contracted limits of 8.728 mgd peak wet weather flow.
- Wastewater in excess of the LAVWMA export limit would be treated at the WRP to recycled water quality standards.
- During wet weather periods the treated wastewater in excess of the LAVWMA export limit would be pumped to a storage reservoir. Over the course of the five-month wet weather period, the total volume of wastewater that would need to be stored in the reservoir is estimated at approximately 560 million gallons, or approximately 1,700 acre-feet. Assuming an average depth of 20 feet, the reservoir would require approximately 85 acres of land. Previous analysis conducted by the City pursuant to the North Livermore Specific Plan identified a potential site for such a reservoir in North Livermore, constructed as a dam at the upper end of Cayetano Creek.
- Reclaimed water stored in this reservoir would then be used during the dry season for irrigation. Also during the dry season, reclaimed wastewater in excess of the LAVWMA export limit would be pumped directly from the WRP into a reclaimed water distribution system and used directly for irrigation. Over the course of the seven-month dry weather period, approximately 273 million gallons, or 850 acre-feet of water is estimated to be available directly from the WRP. Combined with the water stored in the reservoir, a total of approximately 2,550 acre-feet of reclaimed water would be available for irrigation use. At an average irrigation application rate of approximately 2.0 to 2.5 acre-feet per year, between 1,050 and 1,300 acres of land within North Livermore must be irrigated for cultivated agriculture with this supply of reclaimed water. The 2001 recycled water use in Livermore (e.g., on the City golf course and landscape irrigation) was approximately 750 acre-feet/year.¹¹
- The City of Livermore would need to ensure irrigation users that consistently consume recycled water in order to properly regulate reservoir levels.
- Depending on where eventual irrigation application could occur, a pump station and transmission pipelines would need to be constructed.

In order to implement such a strategy, the City of Livermore would need to develop a full wastewater disposal master plan including an identification and analysis of necessary pumping requirements,

¹⁰ ESA, 1998. LAVWMA Export Pipeline Facilities Project Final EIR. July.

¹¹ Brown and Caldwell. 2001. Water Reclamation Plan Master Plan.

final reservoir site location and ultimate irrigation application locations. Separate, project-specific environmental review would need to be conducted pursuant to such a master plan. However, at a program level and for the purpose of informing decisionmakers and the public of the potential effects associated with the implementation of the Draft General Plan, the potential environmental impacts associated with this strategy can be summarized as follows.

- If the reservoir site were to be located in North Livermore at the upper portions of Cayetano Creek, this site contains areas with habitat for special-status species and species of concern. This drainage corridor contains seeps, ponds and an intermittent stream that provide potential habitat for red-legged frogs and California tiger salamanders. In order to develop a reservoir in this location, mitigation would be required, potentially including habitat acquisition, enhancement and restoration of similar habitat elsewhere, and species relocation, as necessary. Additional permits for this reservoir would be required, including obtaining a Section 404 permit from the U.S. Army Corps of Engineers, and consultation with the U.S. Fish and Wildlife Service pursuant to a potential section 7(a), 7(c), or 10(a) permit under the Federal Endangered Species Act.
- If the reservoir were to be constructed as a dam within the walls of this drainage, the side slopes in this area are steep (in excess of 30 percent slope in some locations) with moderate to high landslide potential. The reclaimed water storage reservoir be need to be designed and constructed in such a manner as to minimize potential geologic hazards.
- This potential reservoir site, located within the tributary area of Cayetano Creek, could contain cultural resources. Focused subsurface testing by means of mechanical backhoe trenching would need to be conducted at this site prior to any construction activities. Should any cultural resources be discovered during this testing or during subsequent construction of this facility, construction should be halted and a resource recovery plan be developed and implemented.
- Construction of a storage reservoir could be considered to be a significantly negative visual impact. Subsequent to a detailed siting study to precisely identify the location of the recycled water storage reservoir, efforts to minimize the visual impact that such a facility could have on the surrounding area might include construction of a bermed dike, graded and landscaped in a manner consistent with transitional areas and buffers. The dam could be graded to provide a smooth transition between the constructed dike and natural areas, and landscaping of the transition area could include oak woodland and grass planting to create a naturally appearing condition.
- Additional environmental impacts are anticipated associated with the application of this reclaimed water as irrigation within North Livermore. These environmental impacts are being evaluated by Alameda County pursuant to environmental review for implementation of the North Livermore Intensive Agriculture Program as described in the most recently adopted East County Area Plan (ECAP). These impacts are preliminarily anticipated to include potential increased salt loading of the Main Groundwater Basin and the Niles Cone (ACWD), potential degradation of the underlying groundwater currently used as drinking water supply for existing residents in this area, and loss of habitat for sensitive wildlife and plant species.¹²

Should the City eventually select a wastewater disposal strategy that includes development of a reclaimed water system to be used to supply irrigation water for North Livermore agriculture, the following measures should be considered to reduce potential adverse environmental impacts.

¹² Gregory, Scott. Principal Lamphier/Gregory Associates. Personal communication to LSA Associates. May 2003.

- Construction of any necessary reclaimed water reservoir should include appropriate remediation of any landslide conditions to eliminate slide hazards and provide stable abutments and foundation for the dam. Geotechnical investigations shall be conducted at the reservoir site to provide a basis for design. The final design of the dam shall address the structural requirements of this facility to appropriately remediate any potential effects associated with ground shaking, surface rupture and earthquake induced landslides. The California Division of Dam Safety shall review and approve the design and construction of the storage reservoir.
- Construction of a reclaimed water reservoir and implementation of other aspects of a master plan for reclaimed water irrigation disposal may result in the loss of wetland habitat or the potential loss of sensitive plant or animal species. Mitigation for this impact shall consist of the creation and enhancement of new habitat to ensure no net loss of wetlands or sensitive species habitat.
- All modifications to wetlands or other waters that may result from implementation of a master plan for reclaimed water irrigation disposal shall be coordinated with California Department of Fish and Game and the U.S. Army Corps of Engineers to the extent required by state and federal law. All mitigation requirements and any design modifications resulting from this coordination should be incorporated into the planning and design of the master plan.
- Sensitive animal species that may be disturbed by implementation of this master plan shall be salvaged and re-located to suitable areas subject to resource agency approvals.

Reclamation with Chain of Lakes Storage and Irrigation. Another potential wastewater disposal strategy could be developed to meet the cumulative wastewater disposal needs of the City at buildout that would include increased water reclamation, storage in Zone 7's Chain of Lakes, and disposal via irrigation throughout the City. The description of this strategy is similar to that described above for the Reclamation with North Livermore Storage and Irrigation alternative. The City would continue to dispose of wastewater flows through LAVWMA within its currently contracted limits. Wastewater in excess of the LAVWMA export limit would be treated at the WRP to reclaimed water quality standards. This excess reclaimed water would then be delivered via a pipeline from the WRP to an existing excavated mining pond within the Chain of Lakes for temporary storage.

The Chain of Lakes is a combination of mining quarries in various stages of excavation, owned by Kaiser, Lonestar and Roads & Jamieson. The rate of excavation and estimated completion date for each of the lakes depends on the demand for gravel, which in turn depends on the state of the construction economy. The estimated completion of all mining operations is 2030. Zone 7 is currently pursuing an agreement with the three property owners for eventual conveyance of ownership of these quarries once all mining operations are complete, which is estimated in the year 2030. Zone 7 is considering plans to use the Chain of Lakes to store reclaimed water, "raw" agricultural water, and/or flood control water. Additionally, other agencies have expressed interest in using the Chain of Lakes. For example, the City of Pleasanton has suggested that at least one of the lakes be used for flood water storage. Dublin San Ramon Services District (DSRSD) has expressed interest in use of the lakes for disposal of reverse osmosis water, and Zone 7 has plans to use these lakes for recharge of the groundwater basin.

Assuming that the Chain of Lakes could be used for temporary storage of reclaimed water, the reclaimed water would then be pumped out and used for irrigation during the dry season. This water could be used to irrigate areas within the City such as parks, greenbelts, commercial landscape areas, and landscaping along arterial roadways. Alternatively, or in addition to irrigation of urban

landscaping within the City, this reclaimed water could be used to irrigate cultivated agricultural land in the North Livermore and/or South Livermore area.

Zone 7 has identified the use of the Chain of Lakes for recharge and water storage purposes as one of many potential long-term water supply options that it may consider to meet the water demands of its service area. In Zone 7's *Water Supply Planning Program - Program EIR*, the potential environmental impacts associated with the use of Chain of Lakes for such purposes were evaluated on a programmatic level.¹³ This document found that:

“Potential impacts would be primarily related to installation of necessary transmission facilities, and final grading of pit sidewalls and bottoms. Under existing groundwater management, non-utilized gravel pits receive groundwater inflow, and generally contain water year-round. Therefore, conversion of the gravel mining operation to water storage is not anticipated to result in environmental impacts to surrounding land uses, and would likely result in beneficial impacts through a reduction in air quality and noise impacts generated by gravel mining activities.”

However, potential environmental impacts and mitigation strategies that would be required for this option include:

- All water entering the Chain of Lakes may potentially percolate into the groundwater as recharge. Reclaimed water generated from the Livermore WRP typically has a salt concentration of approximately 700 mg/l of total dissolved solids (TDS). Since existing TDS levels within the Main Groundwater Basin is approximately 400 to 450 mg/l, percolation of “saltier” reclaimed water into the groundwater could have potentially significant impacts to the water quality of the Main Basin. This potential impact may require mitigation through treatment of the reclaimed water with reverse osmosis or other management approaches to remove salts.
- In order to deliver reclaimed water to the Chain of Lakes, a pump station and transmission pipeline would be needed. The transmission pipeline would likely follow one of two alternative routes. Either route would involve typical construction-related impacts (temporary dust, equipment emission and traffic interruptions) that could be mitigated through standard construction methods.

As eventual owner and operator of the quarries, Zone 7 would be the lead agency for implementation of this alternative. Because this alternative would rely on another agency (Zone 7) for implementation, it is beyond the jurisdiction or ability of the City of Livermore to authorize, approve or implement this alternative. At such time as Zone 7 may choose to incorporate this alternative or similar solution as part of its long-term water supply strategy, additional environmental analysis of this alternative would be required, with Zone 7 acting as the lead agency.

Given that policy INF-2.1.P4 proposed in the Draft General Plan is intended to provide the City of Livermore with the option of selecting a preferred wastewater disposal strategy from among various alternatives, the environmental impacts associated with each option differ substantially. Mitigation measures would therefore need to be developed once a preferred option is selected, and pursuant to a more detailed, project-level environmental review of that preferred option. However, this impact is significant and unavoidable.

¹³ Zone 7 and ESA, Zone 7 Water Supply Planning Program - Program EIR, July 1999, page 5-29.

At the program-level of analysis conducted for this EIR, implementation of the policies and actions under Objective INF-2.1 would lessen significant adverse impacts related to wastewater disposal. However, because a preferred wastewater disposal alternative has not been selected by the City to mitigate this impact, this impact is considered significant and unavoidable.

Mitigation Measure INF-GP-1: No additional mitigation measures are available to reduce this impact to a less-than-significant level. This impact is considered significant and unavoidable. (SU)

c. Impacts and Mitigation Measures of the Downtown Specific Plan. The following discussion describes environmental impacts associated with implementation of the Downtown Specific Plan.

(1) Less than Significant Impacts of the Downtown Specific Plan. Less than significant impacts associated with water treatment and delivery, wastewater collection and reclamation plant expansion, storm drainage collection, energy, other public utilities and solid waste are citywide issues affecting the Downtown and were discussed under the analysis for the Draft General Plan. Less-than-significant impacts associated with water supply, water infrastructure and storm drainage related specifically to the Downtown are discussed below.

Increased Demand for Potable Water. The development allowed by the Downtown Specific Plan will increase the demand for potable water in the Downtown area due to the concentration of new residential units and multi-story structures that are anticipated in the likely buildout scenario. The water service in the Downtown is provided by the California Water Service Company (Cal Water). Cal Water receives a portion of its water from the Zone 7 Water Agency and the remainder from wells that Cal Water owns within the City. The increase in demand due to this new development will not cause water supply issues for Cal Water. The supply from Zone 7 anticipates the total buildout of the Draft General Plan (including the Downtown) and therefore, will allow for this additional development in the Downtown. Cal Water has sufficient storage and supply for the new development.

Water Distribution Lines. The development of the Downtown Specific Plan will not require the extension of major water lines to serve new development. The development of the Downtown Specific Plan will require the reconstruction of some water lines in the Downtown area. Cal Water has an ongoing program of replacing and upsizing older mains within their service area. As new development occurs or the City does reconstruction projects on streets within the service area, Cal Water takes advantage of the cost savings of upgrading their water system in conjunction with the City Capital Improvement Project. Individual developers are required to contribute to new infrastructure required by their development.

Storm Drainage. Implementation of the Downtown Specific Plan involves the redevelopment of areas that are currently developed and for the most part exclusively impervious areas. Therefore, the development and redevelopment planned by the Downtown Specific Plan will not generate additional storm water runoff that would exceed the existing or planned capacity of the City's storm drain system. The construction or substantial expansion of existing facilities would not exceed those already identified in the 1995 Storm Water Master Plan or currently programmed in the City's Capital Improvement Plan.

(2) **Significant Impacts of the Downtown Specific Plan.** Significant impacts associated with the lack of wastewater disposal capacity are citywide impacts and are discussed under the analysis for the Draft General Plan.

E. PUBLIC SERVICES

This section evaluates the effects of the Draft General Plan and Downtown Specific Plan on public services, including police, fire, schools, parks, and recreational facilities and services. Potential impacts on these public services that could result from implementation of the proposed project are identified, and mitigation measures are recommended, as appropriate.

1. Setting

The EIR setting information for public services is contained in Volume 1: Master Environmental Assessment (MEA). Please refer to Chapter 7, Public Services, of the MEA for a description of existing public services in Livermore.

2. Guiding Documents

This subsection identifies the policies contained in the Draft General Plan and Downtown Specific Plan that specifically relate to the provision of public services in Livermore. The policies and actions identified below have been carefully selected so as to include only those that could directly lead to potential impacts as defined by the criteria of significance set forth in subsection 3a below. A complete list of Draft General Plan policies is contained in Appendix B of this EIR. Note that goals, objectives, policies and actions from the South Livermore UGB Initiative or the North Livermore UGB Initiative are identified in *italics* and are noted as initiative language in the Draft General Plan.

a. Draft General Plan. Policies pertaining to public services are found throughout the Draft General Plan in the following elements: Land Use; Infrastructure and Public Services, Open Space and Conservation; and Public Safety. Relevant policies are listed below.

Land Use Element

LU-1.2.P1 Where possible, neighborhood and community commercial uses shall be integrated with public uses in similar areas as comprehensively designed service centers that include public facilities, day care centers, multi-purpose meeting places, health care facilities, housing for the elderly, transportation centers, and schools.

LU-2.1.P3 Future growth shall not exceed the community's capability to provide services. School classroom facilities, sewage treatment capacity, treated domestic water, public parks and recreation, and public safety services shall be the principal factors considered.

LU-2.1.P5 The City shall establish a growth range which supports the goals and policies for well-managed growth. The Planning Commission shall develop general policy recommendations, and the Growth Review Committee, appointed by the City Council, shall develop growth range recommendations for well-managed growth. Recommendations shall take into consideration the following factors:

- (a) State and federal policies and standards relating to the environment, including air quality;
- (b) The need for the City to accommodate a reasonable share of regional population growth with regards to Association of Bay Area Governments (ABAG) population projections;
- (c) Energy conservation;
- (d) Historical growth patterns relative to the Bay Area and Alameda County;
- (e) The need to encourage infill development in the City;
- (f) The need to provide very-low and low-income housing consistent with ABAG's housing needs determination;
- (g) The need to support viable local employment and commerce opportunities;
- (h) The need for well-designed, high quality housing;

- (i) The need to ensure that public facilities and services can adequately support future growth; and
- (j) The need to provide a jobs/housing balance, as well as a jobs/housing match.

LU-3.1.P1 Prior to or concurrent with approval of any development applications, a specific plan shall be prepared and approved for the Greenville BART TOD. The specific plan shall provide detailed guidance for project-related land use, provision and financing of public services and facilities, open space preservation, visual resources, and recreational amenities, and shall include mitigation measures to reduce the impacts of individual projects on existing neighborhoods and environmental resources.

Infrastructure and Public Services Element

Police Services:

INF-5.1.P1 Major land use development proposals shall be reviewed for site design criteria and other law enforcement concerns.

INF-5.1.P2 The City shall request notification from the County of development projects within the unincorporated part of the Planning Area that could call for law enforcement services from the City.

INF-5.1.P3 It is the policy of the City to review annual LPD staffing levels and development trends to determine whether additional police staffing or facilities are needed.

Fire Services:

INF-6.1.P1 The City shall continue to participate in the joint powers authority agreement governing the consolidated Livermore-Pleasanton Fire Department.

INF-6.1.P2 The City shall continue to provide fire fighting equipment, facilities and manpower sufficient to assure:

- (a) quick response to all calls by the “first due” company
- (b) availability of additional companies for serious fires in high value areas
- (c) capability for handling simultaneous fires
- (d) a water system capable of sustaining prerequisite fire flow at all times.

INF-6.1.P3 The City shall maintain its mutual aid agreements with both Lawrence Livermore National Labs and Alameda County in order to provide adequate fire protection to unincorporated parts of the Planning Area.

INF-6.1.P4 The City will continuously strive to improve performance and efficiency in the Fire Department.

INF-6.1.P5 It is the policy of the City to review annual LPFD staffing levels and development trends to determine whether additional police staffing or facilities are needed.

INF-6.2.P1 Major land use development proposals in fire hazard areas shall be reviewed for site design criteria and appropriate preventive and self-protective measures.

INF-6.2.P2 The City shall request notification from the County of development projects within the unincorporated part of the Planning Area that could call for fire protection services from the City.

INF-6.3.P2 The City shall build and require roadways that are adequate in terms of width, radius, and grade to facilitate access by City fire-fighting apparatus, while considering maintenance of Livermore’s character.

INF-6.3.P3 The City shall work to reduce demand for public fire protection services through emphasis on fire prevention education and on fire protection measures for private and public structures.

Schools:

INF-7.1.P1 To the extent allowed by State law, the City shall ensure that school facilities to serve new development are available concurrently with need.

INF-7.1.P2 The City will collaborate with the Livermore Valley Joint Unified School District to ensure the provision of educational facilities sufficient for the existing and anticipated K-12 population.

INF-7.2.P1 The City shall give the School District the opportunity to review proposed residential developments and make recommendations based on school-child projections, existing school capacity, access, traffic issues, need for additional facilities and other such factors in order to assist the City in acting on the proposal.

INF-7.2.P2 The City shall consider the comments of the School District concerning availability of educational facilities before approving new residential development.

INF-7.3.P1 Elementary schools should be located centrally to the student populations they will serve. Sites shall serve areas bounded by major streets so that children do not have to cross such streets to get to school.

INF-7.3.P2 Elementary school sites should be located away from major streets to avoid vehicular noise and traffic hazards which interfere with the educational process.

INF-7.3.P3 Wherever possible, school sites should be integrated with recreation parks and community recreation/non-motorized transit corridors to permit recreational experiences as part of the educational process and to allow pedestrian and bicycle access.

INF-7.3.P4 Intermediate and high schools should be located centrally to the student populations they will serve. Sites shall have access to collector or major streets to permit access by pedestrians, bicycles and public transit with a minimal impact on surrounding residential areas.

Other Services:

INF-3.3.P3 Recreational opportunities adjacent to the arroyos and creeks shall be incorporated where possible. Primarily bikeways and trails shall be located adjacent to the arroyo and creek corridors as outlined in a master plan prepared for bikeways and trails.

INF-9.1.P1 The City shall support and encourage the construction of healthcare facilities in Livermore.

INF-10.1.P2 The City shall consider the impact of development on the supply of childcare. Mitigation may take the form of providing on-site or off-site facilities, in-lieu fees to provide facilities and/or supplement childcare provider training, or other measures to address supply, affordability, or quality of childcare.

Open Space and Conservation Element

OSC-1.4.P1 The City shall encourage the County of Alameda, East Bay Regional Park District, and the Livermore Area Recreation and Parks District to preserve and protect areas outside the Urban Growth Boundary.

OSC-5.1.P1 Livermore's existing parks shall be maintained and enhanced, as appropriate.

OSC-5.1.P2 Require developers to provide land or in lieu fees for parks, as governed by the terms of the Quimby Act.

OSC-5.1.P3 The City shall implement a standard of five acres of publicly-owned parkland per thousand population and require new development to provide new park acreage or in-lieu fees at this ratio.

OSC-5.1.P4 Where feasible and safe, the City shall provide recreational access to properties on which new public facilities are sited.

OSC-5.1.P5 To the extent allowed by State law, the City shall ensure that parks and recreational facilities serving new development are available concurrently with need.

OSC-5.1.P6 The City shall coordinate with LARPD and EBRPD to develop adequate regional park space around Livermore to serve foreseeable population increases.

OSC-5.2.P1 The City shall work with LARPD to provide facilities within neighborhood parks that will meet the needs of nearby residents.

OSC-5.2.P2 The City shall work with LARPD to provide a full range of public park and recreation facilities that reinforce community identity and are efficient, convenient to users, and appropriately distributed throughout the community.

OSC-5.4.P1 The City shall continue to encourage public access to, and maintenance of, existing recreational trails in the Planning Areas.

OSC-5.4.P2 Recreational access to the open space surrounding the City shall be encouraged to the extent that it is compatible with provisions of the Land Use Element.

Public Safety Element

PS-2.2.P1 The City shall, in cooperation with the County of Alameda, prepare and maintain a disaster relief plan that addresses potential flood inundation in the areas below the Del Valle Reservoir and the Patterson Dam, as a result of dam failure.

PS-3.1.P1 Areas in which the elimination of fire hazard would require the following measures shall not be developed:

- (a) major modification of existing land forms.
- (b) significant removal of, or potential damage to, established trees and other vegetation.
- (c) exposure of slopes which cannot be suitably re-vegetated.

PS-3.1.P2 In order to ensure fire safety, development shall be restricted in areas with steep terrain.

PS-6.1.P1 The City shall complete regularly-scheduled reviews and updates of its emergency management plans.

b. Downtown Specific Plan. The following Downtown Specific Plan development standards are directly applicable to public services:

Downtown Core Planning Area

6.3 Open Space

- A. Commercial and Office Development: Developments of greater than 50,000 square feet shall provide a minimum of one hundred (100) square feet of usable public open space for every 2000 square feet of ground floor retail space constructed, and a minimum of one hundred (100) square feet of usable open space for every 1000 square feet of office space constructed. Open space provision shall not include required setback areas. Open space may be constructed on-site, or off-site if located within the Downtown Core Plan Area.
- B. Residential and Mixed Use Developments: Outdoor space shall be provided at a minimum of one hundred fifty (150) square feet of public open space and sixty (60) square feet of private open space per residential unit. Open space provision shall not include required setback areas. Public and private open space for residential uses must be constructed on-site; however, for developments at densities higher than 30 du/acre, the requirement for public open space may be constructed off-site if located within 500 feet of the project.
 - 1. For Mixed Use Developments, public open space provided will count towards the minimum public open space requirements for all uses.
- C. Iron Horse Trail: All new developments located on parcels backing onto the Southern Union Pacific right-of-way shall be required to provide a 20-foot dedication south of the existing right-of-way, to be reserved for the Iron Horse Multi-Use Trail. Developments shall be required to provide improvements to the trail.
- D. All public open spaces shall be accessible to the public during daylight hours, and shall be designed to connect with public rights-of-way and adjacent public open spaces in the vicinity.
- E. For all developments, the developer shall prepare binding agreements (“CC&R’s”) addressing issues of common interest in terms of maintenance of public open space, tree planter areas, planting strips, and walks.

Downtown Transit Gateway District/Downtown Boulevard Gateway District

6.3 Open Space

- A. Retail Development: Developments of greater than 50,000 square feet shall provide a minimum of one hundred (100) square feet of usable public open space for every 2000 square feet of ground floor retail space constructed, and a minimum of one hundred (100) square feet of usable open space for every 1000 square feet of office space constructed. Open space provision shall not include required setback areas. Open space may be constructed on-site, or off-site if located within 500 feet of the project.
- B. Office Development: Developments of greater than 20,000 square feet shall provide a minimum of one hundred (100) square feet of usable public open space for every 1000 square feet of office space constructed. Open space provision shall not include required setback areas. Open space may be constructed on-site, or off-site if located within 500 feet of the project.

- C. Attached Single-Family and Multi-Family Residential and Mixed Use Developments: Outdoor space shall be provided at a minimum of two hundred (200) square feet of public open space and one hundred (100) square feet of private open space per unit. Open space provision shall not include required setback areas. Open space must be constructed on-site.
 - 1. For Mixed Use Developments, public open space provided will count towards the minimum public open space requirements for all uses.
- D. Detached Single-Family Residential: A minimum of three hundred (300) square feet of private, usable outdoor space must be provided on-site for all detached single-family residential units.
- E. Iron Horse Trail: All new developments located on parcels backing onto the Southern Union Pacific right-of-way shall be required to provide a 20-foot dedication south of the existing right-of-way, to be reserved for the Iron Horse Multi-Use Trail. Developments shall be required to provide improvements to the trail.
- F. All public open spaces shall be accessible to the public during daylight hours, and shall be designed to connect with public rights-of-way and adjacent public open spaces in the vicinity.
- G. For all developments, the developer must prepare binding agreements (“CC&R’s”) addressing issues of common interest in terms of maintenance of public open space, tree planter areas, planting strips, and walks.

Downtown Neighborhood North Side/Downtown Neighborhood South Side

6.3 Open Space

- A. Attached Single-Family and Multi-Family Residential and Mixed Use Developments: Outdoor space shall be provided at a minimum of two-hundred (200) square feet of public open space and one-hundred (100) square feet of private open space per unit. Open space provision shall not include required setback areas. Open space shall be constructed on-site.
 - 1. For Mixed Use Developments, public open space provided will count towards minimum public open space requirements for all uses.
- B. Office Development: Developments of greater than 20,000 square feet shall provide a minimum of one hundred (100) square feet of usable open space for every 1000 square feet of office space constructed. Open space provision shall not include required setback areas. Open space may be constructed on-site, or off site if located within 500 feet of the project.
- C. Commercial Development: There are no open space requirements for Commercial Development in the Neighborhood Plan Areas.
- D. Detached Single-Family Residential: A minimum of three-hundred (300) square feet of private, usable outdoor space shall be provided on-site for all detached single-family residential units.
- E. Iron Horse Trail: All new developments located on parcels backing onto the Southern Union Pacific right-of-way from Murrieta Boulevard east to North Livermore Avenue, shall be required to provide a 20-foot dedication south of the existing right-of-way, to be reserved for the Iron Horse Multi-Use Trail. Developments shall be required to provide improvements to the trail.

- F. All public open spaces shall be accessible to the public during daylight hours, and shall be designed to connect with public rights-of-way and adjacent public open spaces in the vicinity.
- G. For all developments, the developer must prepare binding agreements (“CC&R’s”) addressing issues of common interest in terms of maintenance of public open space, tree planter areas, planting strips, and walks.

3. Impacts and Mitigation Measures

This subsection analyzes impacts related to public services that could result from implementation of the Draft General Plan and Downtown Specific Plan. The two documents comprising the proposed project are generally addressed together due to the interrelated nature of their associated impacts. The subsection begins with the criteria of significance, which establish the thresholds to determine whether an impact is significant. The latter part of this subsection presents the impacts associated with the proposed project, and recommends mitigation measures, as appropriate.

a. Criteria of Significance. Implementation of the proposed project would have a significant effect on *public services* if it would:

- Result in an increased demand for police and fire services exceeding existing or planned staffing levels;
- Result in response times to calls for fire and police services beyond established levels;
- Increase the potential risk for urban fire hazards;
- Increase the risk of wildland fire hazards;
- Result in a demand for school services beyond the existing or planned capacity of the school district served;
- Create a demand for school services or other public facility that would require the building of new facilities that cause adverse physical impacts;
- Substantially increase demand for neighborhood parks, regional parks or recreational facilities that would accelerate their physical deterioration, or decrease the quality of the facilities or users’ experience; or
- Result in the removal of a neighborhood park, regional park, recreational facility, or publicly owned open space.

b. Impacts and Mitigation Measures of the Draft General Plan. The following discussion describes impacts on public services associated with implementation of the Draft General Plan. Because development resulting from the Downtown Specific Plan is accounted for in the development projections associated with the Draft General Plan, most impacts resulting from the two plans are addressed together in the following discussion. Where mitigation measures are recommended in the form of new or revised Draft General Plan policies, they would serve to mitigate impacts from Downtown Specific Plan development as well.

(1) Less-than-Significant Impacts of the Draft General Plan. Following is a discussion of the less-than-significant impacts of the Draft General Plan. The analysis includes evaluation of less-than-significant impacts of the Downtown Specific Plan.

Increased Demand for Police and Fire Services. Implementation of the Draft General Plan would result in a citywide population increase of approximately 28,377. This population increase would include development allowed by the Downtown Specific Plan. Based on the staffing ratio goal of 1.25 officers per 1,000 population maintained by the Livermore Police Department (LPD), this population increase would require the hiring of a minimum of approximately 35 additional police officers by 2025. Although the Livermore-Pleasanton Fire Department (LPPD) does not maintain a minimum fire protection staff/population ratio, it is anticipated that the population growth resulting from implementation of the Draft General Plan and Downtown Specific Plan would also require the LPPD to hire additional staff. Draft General Plan policies INF-5.1.P3 and INF-6.1.P5 would ensure that the City reviews annual LPD and LPPD staffing levels to ensure the availability of adequate fire and police manpower, and service facilities. The implementation of these policies would ensure that adequate capital improvements are made to accommodate the increased demand for police and fire protection services. Therefore, potential impacts associated with an increase in demand for police and fire protection services are considered less-than-significant and need no further mitigation.

Emergency Response Times. The average LPD response time to Priority One calls exceeds the LPD's targeted 3-minute response time by over 2 minutes. Due to the increased number of calls resulting from population growth and roadway congestion related to the Draft General Plan, already-deficient emergency response times could worsen. In addition, population growth and traffic could cause the LPPD to be increasingly unable to meet its response time goal of 7 minutes. However, impacts to emergency response times would be mitigated through implementation of Draft General Plan policies INF-5.1.P3, INF-6.1.P2, INF-6.1.P4, INF-6.1.P5, which mandate regular review of LPD and LPPD staffing levels and facilities, and the provision of sufficient equipment, facilities, and manpower to ensure an adequate emergency response. In addition, Draft General Plan policy LU-2.1.P3 states that future growth shall not exceed the community's capability to provide services, including police and fire-fighting services. Therefore, growth would only be permitted when adequate emergency response times could be maintained.

Urban Fire Hazards. Implementation of the Draft General Plan and the Downtown Specific Plan would result in an overall population and density increase within Livermore's Urban Growth Boundary. The Fire Protection Bureau would review all proposals for new development for compliance with existing fire protection regulations. All new buildings constructed in Livermore would be required to be in compliance with existing fire protection standards. In addition, Draft General Plan policy INF-6.3.P2 states that the City would build and require new roadways that can adequately accommodate City fire-fighting apparatus. This policy would ensure adequate roadway access to buildings that could be susceptible to fire hazards. Although implementation of the Draft General Plan would result in density and building height increases, it is anticipated that existing roadways could be adapted to this scale of development. Standard review of all projects for adequate fire safety measures and implementation of policy INF-6.3.P2 would ensure that urban fire hazards would not compromise human health and safety, and any impacts associated with the project would be less-than-significant.

Wildland Fire Hazards. New development associated with the Draft General Plan and Downtown Specific Plan would occur within or immediately adjacent to already-developed urban areas. Undeveloped lands designated for residential or commercial uses in the Draft General Plan are not located immediately adjacent to woodland or forested areas, or other natural communities that

pose a wildfire hazard threat. However, new development could occur adjacent to grassland areas, which are subject to wildfire hazards. Draft General Plan policy INF-6.2.P1 specifies that major land use development proposals in fire hazard areas would be reviewed for adequate site design criteria and appropriate preventative and self-protective measures. In addition, policy PS-3.1.P1 would restrict development in areas of steep terrain, where the fire fighting apparatus may be ineffective in combating wildland fires. Implementation of these policies would reduce the threat to human health and safety from wildland fire hazards to a less-than-significant level without further mitigation.

Demand for School Services. The construction of new housing (1,854 units of single-family housing and 10,007 units of multi-family housing) envisioned by the Draft General Plan and Downtown Specific Plan could result in the generation of approximately 6,523 students, based on student generation rates of 0.51 student per new multi-family residential unit and 0.62 student per single-family residential unit. New school facilities would be needed to accommodate anticipated increases in student enrollment resulting from implementation of the proposed project. These new school facilities would be funded in part by new development in Livermore occurring as part of Draft General Plan implementation. New residential projects in Livermore are subject to statutory fees established by the State. These fees are used for the construction of new school facilities, which would be built to accommodate increased student enrollment resulting from residential development in Livermore.

Policy INF-7.1.P1 of the Draft General Plan would require the City to ensure that schools are available to serve new development, to the extent allowed by State law. Policies INF-7.2.P1 and INF-7.2.P2 would require the City and the Livermore Valley Joint Unified School District to collaborate to ensure that sufficient educational facilities are available before the City approves new residential development. Policy INF-7.1.P3 contains additional provisions for financial planning for schools. The implementation of these policies would ensure the planning of new school facilities to accommodate projected increases in student enrollment. The payment by developers of statutory fees would provide funding for planned school projects. Therefore, implementation of the proposed project would not result in demand for school services beyond the existing or planned capacity of the District.

Construction of New Facilities. The Draft General Plan proposes the following locations for potential construction or redevelopment of future schools:

- North of I-580 and west of Springtown Boulevard (private school);
- On the site of the decommissioned 5th Street school, south of 4th Street and west of I Street (elementary school);
- On an undeveloped site immediately south of Robertson Park and west of Concannon Boulevard (elementary school);
- Within an underutilized parcel bordered south of I-580 and west of Franklin Lane (high school);
- South of Brisa Street and west of National Drive (elementary school); and
- On undeveloped land to the north and west of the Altamont Pass Road “curve” in the Greenville BART TOD (elementary school).

The construction of school facilities on these sites, and the development of other public facilities, such as libraries and parks, could result in adverse environmental impacts. However, Draft General Plan policies INF-7.3.P1 through P4 would help to reduce the environmental impacts of new school development through requirements for siting of new schools and integration of schools with parks and recreational facilities. In addition, the development of public facilities would be subject to environmental review, pursuant to CEQA. At the time of environmental review, impacts associated with individual public facility projects would be identified and mitigated, as appropriate. Therefore, the development of new public services facilities as part of Draft General Plan implementation would result in a less-than-significant impact.

Parks and Public Open Space. Population and housing growth resulting from implementation of the Draft General Plan and the Downtown Specific Plan would increase demand for parks in and around Livermore. Based on Livermore Area Recreation and Park District (LARPD) parks standards, implementation of the proposed project would result in the need for approximately 57 acres of neighborhood parks, approximately 57 acres of community parks, approximately 426 acres of regional parks, and approximately 85 acres of special use parks, as shown in the calculations below:

28,377 new residents x 2 acres of neighborhood parks per 1,000 residents = 57 acres of neighborhood parks

28,377 new residents x 2 acres of community parks per 1,000 residents = 57 acres of community parks

28,377 new residents x 15 acres of regional parks per 1,000 residents = 426 acres of regional parks

28,377 new residents x 3 acres of special use parks per 1,000 residents = 85 acres of special use parks

The Draft General Plan and Downtown Specific Plan call for a total of five new neighborhood parks and one new community park. In addition, an extension of the Iron Horse Trail through Livermore is being planned. Parks that would be developed during the Draft General Plan buildout period are listed below:

- A neighborhood park on a vacant site bordered by Robertson Park to the north, Robertson Park to the east, Cabernet Way to the south, and Arroyo Road to the west;
- A neighborhood park on a vacant site bordered by Arroyo Vista to the north, Bennett Drive to the east, and Las Positas Road to the south and west in the East Side Area;
- A community park within an underutilized parcel bordered by I-580 to the north, Franklin Lane to the east, railroad tracks to the south, and McGraw Avenue to the east in the East Side Area;
- A neighborhood park on a vacant site bordered by Brisa Street to the north, National Drive to the east, Exchange Court to the south, and Vasco Road to the west in the East Side Area;
- A neighborhood park on a site bordered by Scenic Avenue to the north, an undeveloped area to the east, an undeveloped area to the south, and Herman Avenue to the west in the Greenville BART TOD;
- A neighborhood park on undeveloped land to the north and west of the Altamont Pass Road “curve” in the Greenville BART transit-oriented development;
- An extension of the Iron Horse Trail; and
- Small open space areas in Downtown Livermore.

Draft General Plan policy OSC-5.1.P2 states that the City will require developers to provide land or in lieu fees for parks. In addition, policy OSC-5.1.P5 would require the City to coordinate with LARPD and EBRPD to develop adequate regional park space to serve foreseeable population increases. The implementation of these policies, in addition to the development of planned park and open space areas, would ensure that sufficient park space would be available to accommodate anticipated population growth that would occur as a result of Draft General Plan implementation. No parks would be removed as a result of Draft General Plan implementation.

(2) Significant Impacts of the Draft General Plan. No significant impacts to public services would result from implementation of the Draft General Plan.

c. Impacts and Mitigation Measures of the Downtown Specific Plan. The following discussion describes site-specific public service impacts associated with implementation of the Downtown Specific Plan.

(1) Less-than-Significant Impacts of the Downtown Specific Plan. Implementation of the Downtown Specific Plan would result in one less-than-significant impact. All other less-than-significant impacts of the Downtown Specific Plan are discussed above in subsection b1, Less-than-Significant Impacts of the Draft General Plan.

Fire Hydrant Flow. Approximately 20 outdated wharf fire hydrants with substandard water flow are located in Downtown Livermore. In addition, Downtown contains under-sized water supply mains. Development of sites served by these fire hydrants and water mains could be vulnerable to fire hazards due to insufficient water flow. However, policy INF-6.1.P2 of the Draft General Plan states that the City will provide fire-fighting facilities sufficient to assure a water system capable of sustaining prerequisite fire flow at all times. The Utilities and Infrastructure chapter of the Downtown Specific Plan also contains a policy specifying that “water service to all properties shall provide for sufficient water quality, pressure and reliability in order to meet all needs including fire protection flow standards.” Implementation of these policies would ensure that wharf fire hydrants in Downtown Livermore would be upgraded to accommodate required water flow. Therefore, impacts associated with fire hydrants with substandard water flow would be less-than-significant with no further mitigation needed. Fire hydrants in other portions of the Draft General Plan area meet or exceed the City’s 1,500 gallons-per-minute water flow standard.

(2) Significant Impacts of the Downtown Specific Plan. Implementation of the Downtown Specific Plan would result in one significant impact related to the provision of public services.

Impact PUB-SP-1: Implementation of the Downtown Specific Plan would result in population growth that would be under-served by park space. (S)

An additional 7,400 persons are projected to live in the Downtown plan area with implementation of the Downtown Specific Plan. Currently no neighborhood parks are located or planned in the within the Downtown area, and therefore the Downtown is under-served by neighborhood parks. Implementation of the Draft General Plan would substantially increase city-wide park acreage (as discussed previously), and implementation of the Downtown Specific Plan would result in the development of “pocket parks,” useable pedestrian space and plazas throughout Downtown, and the

Iron Horse regional trail, a significant recreation facility. However, the lack of a neighborhood park could result in the overuse and physical degradation of existing recreational facilities.

Implementation of the following mitigation measure would reduce this impact to a less-than-significant level:

Mitigation Measure PUB-SP-1: The City shall work with private developers and the LARPD to develop a neighborhood park in or adjacent to the Downtown plan area that would serve the existing and future residents living Downtown. (LTS)

F. CULTURAL RESOURCES

This section evaluates potential impacts on cultural resources resulting from implementation of the Draft General Plan and the Downtown Specific Plan. Mitigation measures are recommended as appropriate.

1. Setting

The EIR setting information for cultural resources is contained in Volume I: Master Environmental Assessment (MEA). Please refer to Chapter 8, Paleontological and Cultural Resources, of the MEA for a discussion of paleontological resources, cultural resources, and the regulatory setting and context for cultural resources.

2. Guiding Documents

This subsection identifies Draft General Plan and Downtown Specific Plan policies and actions pertaining to cultural resources. The policies and actions identified below have been carefully selected so as to include only those that could directly lead to potential impacts as defined by the criteria of significance set forth in subsection 3a below. A complete list of Draft General Plan policies is contained in Appendix B of this EIR. Note that goals, objectives, policies and actions from the South Livermore UGB Initiative or the North Livermore UGB Initiative are identified in *italics* and are noted as initiative language in the Draft General Plan.

a. Draft General Plan. Policies and actions concerning cultural resources are included in the Community Character Element. Relevant policies and actions are as follows.

Historic Preservation Program:

CC-3.1.P1 The City shall maintain a historic preservation commission and historic preservation program with dedicated staff to administer governmental preservation functions and programs.

CC-3.1.P2 The City shall encourage, and when possible require, the preservation of places, sites, areas, buildings, structures, and works of man which have cultural, archaeological, or historical significance or other special distinction to the community.

CC-3.1.P3 Whenever a historical resource is known to exist in or near a proposed project area, the City shall require an evaluation by qualified professionals as a part of the environmental assessment process.

CC-3.1.P4 The City shall encourage the preservation of historic resources to promote the sustainability, stabilization, and revitalization of its neighborhoods.

CC-3.1.P5 The City shall consider historic and cultural resources in its comprehensive planning efforts.

CC-3.1.P6 The City shall act as a role model for historic preservation by maintaining and preserving City-owned historic properties when prudent and feasible.

CC-3.1.P7 The City shall recognize the historic significance of Downtown Livermore through a Specific Plan for the Downtown and shall include provisions encouraging the continued use of historic resources in the Downtown and establishing design guidelines for rehabilitation and new construction.

CC-3.1.A1 Revise historic preservation processes and standards to reflect and implement the goals, objectives and policies of this General Plan.

CC-3.1.A2 Incorporate historic preservation goals, policies, and programs into new specific plans and specific plan updates.

CC-3.1.A3 Pursue identification and establishment of historic districts, if necessary, to better preserve historical resources.

CC-3.1.A4 Implement preservation goals, policies, and guidelines throughout various City departments and functions.

CC-3.1.A5 Review and monitor permit and code enforcement procedures and activities to reinforce preservation goals through the historic preservation commission.

CC-3.1.A6 Review and revise the development review process for historic preservation, as necessary, to provide clear direction on the process, procedures, and specific applicable standards for modifications to historic resources.

CC-3.1.A7 Implement training of City staff and appointed committees and commissions in historic preservation, including familiarity with the Historic Preservation component of the General Plan and specific plans, design guidelines for historic resources, use of the State Historical Building Code, and the historic resource provisions of the California Environmental Quality Act.

CC-3.1.A8 Establish design guidelines for historic resources based on established federal and State standards and guidelines.

Resources Inventory:

CC-3.2.A1 Conduct a citywide survey to document and identify those resources that meet the criteria for listing at the local level, the California Register of Historical Resources, and the National Register of Historic Places.

CC-3.2.A2 Update the historic resources survey periodically, as needed, to reflect changes due to the passage of time, loss of existing historic resources, and the availability of new or reinterpreted information.

CC-3.2.A3 Develop historic context statements for interpreting history about historic properties that share a common theme, common geographical area, or a common time period. This document should help to establish categories of historic significance for a given area.

Public Understanding of Historical Resources:

CC-3.3.P1 The City shall increase knowledge of historic preservation through public education, awareness programs, and outreach programs.

CC-3.3.P2 The City shall support historically-oriented visitor programs at the local and regional levels.

CC-3.3.P3 The City shall encourage identification of historic resources through a program of plaques and markers.

CC-3.3.P4 The City shall encourage and support public and private schools to integrate local history into their curriculums and related educational programs.

CC-3.3.P5 The City shall encourage local private and non-profit organizations in their efforts to promote and protect historic and cultural resources.

CC-3.3.A1 The City shall pursue developing an awards program to recognize excellence in preservation, conservation, rehabilitation, and education.

Protection of Archaeological Resources:

CC-3.4.P1 The City shall require proper archaeological or paleontological testing, research, documentation, monitoring, and safe retrieval of cultural resources as part of a City established archaeological monitoring and mitigation program.

CC-3.4.P2 Whenever there is evidence of an archaeological or paleontological site within a proposed project area, an archaeological survey by qualified professionals shall be required as a part of the environmental assessment process.

CC-3.4.P3 If an archaeological site is discovered during construction, all work in the immediate vicinity shall be suspended pending site investigation by qualified professionals. If, in the opinion of a qualified professional, the site will yield new information or important verification of previous findings; the site shall not be destroyed.

CC-3.4.P4 Archaeological sites should be preserved for research and educational programs. Where possible, such sites shall be made accessible to the public as part of the open space/recreation/ educational system.

CC-3.4.P5 The City shall consult with Native Americans before implementation of any project in the vicinity of Brushy Creek Regional Park.

Preservation of Historic Resources:

CC-3.5.P1 The City shall pursue and support the use of federal, State, local, and private grants, loans, and tax credits.

CC-3.5.P2 The City shall encourage continuing the original use of historic resources where possible; adaptive use of historic resources is the preferred alternative when the original use can no longer be sustained.

CC-3.5.P3 The City shall use the State Historical Building Code and Uniform Code for Building Conservation and provisions for historic buildings in the Americans with Disabilities Act.

CC-3.5.A1 Collect, maintain and make available to the public an information base of State, federal and private incentive programs for historic resources.

CC-3.5.A2 Explore opportunities for promoting heritage tourism, including cooperation with regional and State marketing efforts.

b. Downtown Specific Plan. The Downtown Specific Plan contains the following policies relating to cultural resources.

In Chapter 4, Land Use and Development Policies the following policies relate to cultural resources:

- Structures rated 1 through 3 (1 being the most significant) are designated as “National Landmarks”, and are protected from demolition. Very careful modifications and additions will be permitted to these structures provided the historic value of the structure is not negatively impacted, as detailed in the *Design Guidelines for Historic Structures*. The *Design Standards and Guidelines for Historic Structures* contained in this

Plan are based upon the Standards established by the Secretary of the Interior Standards for Rehabilitation. These structures may also be moved under very special circumstances where relocation is necessary to allow or achieve a public benefit of community wide or regional significance.

- Structures rated 4 are designated as “Potential National Resources”, and receive a lesser level of protection than “National Landmarks”. These structures may be modified or relocated under very special circumstances where modification or relocation is necessary to allow or achieve a public benefit of community wide or regional significance.
- Structures rated 5 and higher are not considered Historic Resources and receive no special protection under this Plan; however, they are subject to the general *Design Standards and Guidelines* contained in the Plan, which will ensure quality construction, renovation and rehabilitation.
- To ensure that any new buildings or additions are appropriate to their context, all improvements to structures that are designated as Historic Resources must refer to the *Design Guidelines for Historic Structures* that are contained within this Specific Plan. The regulatory framework that implements the design review process for historic resources located in the Downtown Specific Plan area will be based on these Guidelines; that process is further described in *Chapter 10: Implementation*.

In Chapter 6, Design Standards and Guidelines, of the Downtown Specific Plan contains the “Design Guidelines – Downtown Historic Structures.” The design guidelines address design principles, building mass and form, storefront composition, façade elements, signage, lighting, and building color for historic structures. The guidelines include the following policy statement:

- The Design Guidelines for Livermore’s Downtown Historic Structures are based upon the Standards established by the Secretary of the Interior. The Standards should be reviewed before commencing on any historic building rehabilitation, repairs or maintenance.

In Chapter 10, Implementation of the Downtown Specific Plan, contains the following relevant policy statements and a review process for historic resources:

- Any actions proposing changes to exterior features that convey the significance of a historic resource, as determined by staff, shall be reviewed for consistency with the Design Standards and Guidelines for Downtown Historic Structures, in addition to all applicable Downtown Specific Plan and General Plan provisions and applicable City ordinances and standards. A final Design Review determination shall be made prior to issuance of any building, grading, or development permit, final map approval, or other ministerial approval.
- Features that convey the significance of a historic resource shall be identified in a historic survey adopted by the City. If a survey report has not been completed for a historic resource, so designated by the City through historic resource policies or codes, a survey report shall be completed by a qualified historic preservation expert.

3. Impacts and Mitigation Measures

The following subsection identifies the potential adverse impacts related to *cultural resources* of the Draft General Plan and Downtown Specific Plan. Where potentially significant impacts of the proposed project are found, mitigation measures are recommended.

a. Criteria of Significance. Implementation of the Livermore Draft General Plan and Downtown Specific Plan would have significant impacts on cultural resources if the project would:

- Cause a substantial adverse change in the significance of a historical resource as defined in the California Code of Regulations (CCR) Section 15064.5;

- Cause a substantial adverse change in the significance of an archaeological resource pursuant to the CCR Section 15064.5;
- Directly or indirectly destroy a paleontological resource or site or unique geologic feature; or
- Disturb any human remains, including those interred outside of formal cemeteries.

b. Impacts and Mitigation Measures of the Draft General Plan. This subsection evaluates potential cultural resources impacts associated with the implementation of the Draft General Plan and identifies mitigation measures to address these impacts, as appropriate.

(1) Less-than-Significant Impacts. Less-than-significant impacts associated with implementation of the Draft General Plan are discussed below.

Historic Resources. Livermore's historical resources are concentrated in the Downtown (see further discussion of Downtown Specific Plan impacts, below). In addition, historical resources associated with viticulture, dry farming, or stock raising are present in the northern parts of the Planning Area and, to a lesser degree, in southern and eastern Livermore. Development activities allowed by the Draft General Plan could affect the significance of a historical resource and/or result in its physical loss. However, Draft General Plan policies and actions under Objectives CC-3.1, 3.2, 3.3, 3.4 and 3.5 provide for the identification and evaluation of historical resources, and avoidance, preservation, restoration, relocation, and/or full documentation of the historical resources found to be significant. Where it is possible to avoid or preserve historical resources according to the Secretary of Interior's Standards, then the potential impact would be reduced to a less-than-significant level (CCR Section 15064.5). In some cases, however, avoidance may not be possible. Thus, while the Draft General Plan policies, and their implementation by the City, may minimize the effect on historical resources, significant impacts on historical resources may still result. Such impacts would need to be determined through further environmental analysis on a project-by-project basis.

Archeological Resources. Development activities allowed by the Draft General Plan could disturb or destroy archaeological sites to the extent that the significance of the resource would be adversely affected. An identified archaeological resource that appears likely to yield important historical or prehistoric information may meet the criteria for listing on the California Register of Historical Resources. If an archaeological resource meets these criteria, any disturbance of the site could result in a significant adverse effect. The Draft General Plan contains policy CC-3.4.P5 that addresses Native American concerns about the sensitive nature of Native American cultural resources within Brushy Creek Regional Park.

All areas adjacent to sources of naturally occurring fresh water, such as springs, marshes, and creeks, are considered sensitive for prehistoric archaeological resources. Prehistoric archaeological sites have been identified along the Arroyo Mocho, Arroyo Las Positas, and Cayetano Creek. These archaeological sites are found at and below the ground surface. Prehistoric archaeological sites have also been identified within Brushy Creek Regional Park. The Draft General Plan does not propose any disturbance of these known sites, however.

Prehistoric archaeological sites may also be found within rock outcrops and Native American special-use areas that may be situated far from sources of water. Thus, while archaeological resources are

much more likely to be identified in sensitive zones adjacent to watercourses, prehistoric archaeological resources could be identified anywhere in the Planning Area.

Draft General Plan policies CC-3.4.P1 through P5 provide measures which would lessen the potential for a substantial adverse change in the significance of a significant archaeological resource. If it is possible to avoid effects on archaeological resources, the potential impact would be reduced to a less-than-significant level. While the Draft General Plan policies, and their implementation by the City, will minimize effects on archaeological resources, significant impacts on these resources may still result. Such impacts would need to be determined through further environmental analysis on a project-by-project basis. Draft General Plan policies CC-3.4.P2 and CC-3.4.P3 provide for this project-level evaluation.

Draft General Plan policies and actions under Objectives CC-3.4 provide for the identification, evaluation and protection of archeological and paleontological resources, and avoidance or preservation of the resources found to be significant and would reduce any impacts to a less-than-significant level.

Paleontological Resources. Paleontological resources have been identified within the Planning Area. However, no *unique* geologic resources have yet been identified within the Planning Area. Development activities allowed by the Draft General Plan could disturb or destroy paleontological and/or unique geologic resources by way of ground disturbance from activities such as building demolition, mass grading, foundation excavation, compacting and/or agricultural disking and grading.

Draft General Plan policies CC-3.4.P1 and P2 provide for the identification, evaluation and protection of paleontological resources, and avoidance or preservation of the resources found to be significant and would reduce any impacts to a less-than-significant level.

Human Remains. Ground disturbing development activities like those described above could result in the disturbance of human remains. Prehistoric archaeological sites may contain human burials. Historical burials associated with the early settlement of Livermore may also be present within the Planning Area. The Draft General Plan does not contain specific actions concerning human remains. However, the Draft General Plan policies, and their implementation by the City, will minimize effects on archaeological resources (including historical burials). Significant impacts associated with sites discovered during construction would need to be determined through further environmental analysis on a project-by-project basis. Draft General Plan policies CC-3.4.P2 and CC-3.4.P3 provide for this project-level evaluation.

(2) **Significant Impacts.** No significant impacts were identified that would result from implementation of the Draft General Plan.

c. Impacts and Mitigation Measures of the Downtown Specific Plan. This subsection evaluates potential impacts on cultural resources associated with the implementation of the Downtown Specific Plan and recommends mitigation measures to address these impacts, as appropriate.

(1) **Less-than-Significant Impacts.** Implementation of the Downtown Specific Plan would result in the following less-than-significant impacts.

As noted, Livermore's historical resources are concentrated Downtown, in an area roughly bounded by Railroad Avenue to the north, Livermore Avenue to the east, College Avenue to the south, and Holmes and First streets to the west. According to the Downtown Specific Plan "Historic Ratings – Downtown Core" map, historical resources are located in the vicinity of two of the three "catalyst project" sites identified in the plan: (1) the Livermore Valley Center ("Golden Triangle") site, and (2) the former Lucky's site (bounded by First Street, L Street, Railroad Avenue, and Livermore Avenue). Development of these sites as called for by the Specific Plan would have the potential to disturb these historical resources. The third "catalyst project" site, the Groth Brothers site (northwest corner of First and L Streets), does not contain historical resources, according to the Specific Plan historic ratings map.

Downtown Specific Plan policies in Chapters 4 and 10, and development and design standards and guidelines in Chapters 5 and 6, and their subsequent implementation would provide for the identification and evaluation of historical resources, and avoidance, preservation, restoration, relocation, and/or full documentation of historical resources found to be significant. In addition, the Plan's design guidelines would help to ensure that any changes to historical structures would preserve the historical integrity of the structure. Where it is possible to avoid or preserve resources according to the Secretary of Interior's Standards, then the potential impact would be reduced to a less-than-significant level (CCR Section 15064.5). In some cases, however, avoidance may not be possible. While the Downtown Specific Plan policies and guidelines, and their implementation by the City, may minimize the effect on historical resources, significant impacts on historical resources may result. Such impacts would be determined through further environmental analysis on a project-by-project basis as required by the City.

The Specific Plan area may contain historical archaeological sites associated with the early development of Livermore's Downtown and surrounding area. General locations of prehistoric archaeological sites are discussed in the previous Draft General Plan evaluation above. While prehistoric archaeological sites tend to be located near sources of fresh water, archaeological sites may be located throughout the Livermore Valley, including within the Downtown Specific Plan area. No prehistoric archaeological sites have been identified within the plan area, however.

Similarly, no paleontological or unique geologic features have yet been identified in the Downtown Specific Plan area, development activities allowed by the Downtown Specific Plan could disturb or destroy as-yet unknown features.

Draft General Plan policies provide measures which would lessen the potential for a substantial adverse change in the significance of an archaeological or paleontological resource. If it is possible to avoid effects on archaeological resources, the potential impact would be reduced to a less-than-significant level. Significant impacts on these resources may still result, however. Such impacts would need to be determined through further environmental analysis on a project-by-project basis.

While the Downtown Specific Plan does not have specific policies that address archeological and paleontological resources, it is the City's intent that the Draft General Plan policies shall be followed where the Downtown Specific Plan does not contain guidance for development.

With implementation of Downtown Specific Plan and Draft General Plan policies, significant adverse impacts to cultural resources would be reduced to a less-than-significant level.

(2) **Significant Impacts.** No significant impacts were identified that would result from implementation of the Downtown Specific Plan.

G. AIR QUALITY

This section evaluates potential impacts to air quality resulting from implementation of the Draft General Plan and Downtown Specific Plan. The evaluation of environmental effects presented in this section focuses on potential air quality impacts associated with consistency with air quality management plans, construction emissions, odors and development-related traffic emissions. Mitigation measures are proposed as necessary.

1. Setting

The following discussion utilizes setting information contained in Volume I: Master Environmental Assessment (MEA) on air quality. Please refer to Chapter 9, Air Quality, of the MEA for background and existing setting information on air quality standards, regulatory framework, and attainment status; existing climate and air quality; and air quality issues for the City of Livermore. Appendix E in the Technical Appendices document (bound separately) contains the background technical information for the air quality analysis.

2. Guiding Documents

This section identifies Draft General Plan and Downtown Specific Plan policies and actions pertaining to air quality. The policies and actions identified below have been carefully selected so as to include only those that could directly lead to potential impacts or represent mitigations when it comes to air quality and the criteria of significance set forth in subsection 3a below. A complete list of Draft General Plan policies is contained in Appendix B of this EIR. Note that goals, objectives, policies and actions from the South Livermore UGB Initiative or the North Livermore UGB Initiative are identified in *italics* and are noted as initiative language in the Draft General Plan.

a. Draft General Plan. The Draft General Plan incorporates air quality policies and actions into the Open Space and Conservation Element. The Land Use, Circulation and Public Safety elements also contain policies that relate to air quality. The following policies and actions pertain to air quality:

Open Space and Conservation Element

OSC-6.1.P1. The City shall require project developers to develop and implement a construction-period air pollution control plan, consistent with dust and emission-abatement actions outlined in the CEQA handbook of the Bay Area Air Quality Management District.

OSC-6.1.P2. The City shall prohibit the location of sensitive receptors (e.g., residential uses, schools, hospitals) in the vicinity of industries that generate toxic emissions; conversely, prohibit the location of industries that generate toxic emissions in the vicinity of sensitive receptors.

OSC-6.1.P3. The City shall work with local and regional municipalities and agencies to reduce automobile-related vehicle emissions.

OSC-6.1.P4. All industrial uses within Livermore shall meet regional, State and federal air pollution standards.

OSC-6.1.P5. The City shall attempt to increase the employment to population ratio to reduce commuting rates and associated vehicle-related pollution emissions. The City shall approve only those development proposals which are designed and located to minimize energy consumption and adverse impacts on air, land and water

resources. High-density, transit-oriented developments shall be strongly encouraged and promoted through the use of specific planning, density transfer, the planned development concept, and zoning designations.

OSC-6.1.P6. The City shall monitor air quality and shall consider implementing a population cap if air quality declines over the next five to ten years.

OSC-6.1.P7. The City shall support programs to encourage the development and maximum use of regional and local mass transit systems. To this end, the City shall actively support:

- the funding and construction of a BART or light/commuter rail extension to Livermore;
- the designation of special lanes on I-580 for the exclusive use of commuter buses during peak traffic periods; and
- close coordination in the operations of local and regional transit systems in order to minimize the travel time between communities and major generating areas served by the regional system.

OSC-6.1.A1 Provide incentives to purchase vehicles that have alternative fuel systems with reduced emissions.

OSC-6.1.A2 Provide incentives to reduce vehicle trips and increase ridesharing so as to reduce pollutants generated by vehicular combustion engines.

OSC-6.1.A3 Seek means to meet State standards for emission of air pollutants so that vegetation (including crops), the visual environment, and public health will be protected.

OSC-6.1.A4 Study the implementation and feasibility of a population cap which would be implemented in the event of a decline in air quality over the next five to ten years.

OSC-6.1.A5 Coordinate with other local and regional agencies (e.g. LARPD, LVJUSD, Alameda County) to manage and control fugitive dust from sources including, but not limited to, quarries, ballfields, construction sites and landscaping and maintenance activities.

Land Use Element

LU-1.1.P1 *Except where special conditions warrant, the City shall allow development only on those properties immediately adjacent to established urban areas, in accordance with the North Livermore Urban Growth Boundary Initiative.*

LU-1.2.P1 Where possible, neighborhood and community commercial uses shall be integrated with public uses in similar areas as comprehensively designed service centers that include public facilities, day care centers, multi-purpose meeting places, health care facilities, housing for the elderly, transportation centers, and schools.

LU-1.4.P1 The Downtown shall serve as the primary local commercial area and as the City's historic and pedestrian-oriented retail shopping area within the period of the General Plan.

LU-1.4.P3 Downtown shopping shall be supplemented by neighborhood shopping centers, consisting of retail convenience and personal service uses. Neighborhood shopping centers should be located so that the "trade area" residents are within relatively easy walking distance. Neighborhood centers should be more than one-mile apart so as not to overlap with adjacent trade areas. Regional and community serving uses are to be located in areas designated as Business and Commercial Park or Community Serving General Commercial,

LU-2.1.P12(b) Livermore is part of a critical air basin. In 1999, the San Francisco Air Basin was designated a non-attainment area for ozone and PM₁₀ (particulate matter) under both State and federal air quality standards.

However, additional housing added in the range of 140 to 700 units annually is not anticipated to create significant air quality problems. In addition, a range of between 140 and 700 units allows housing growth to more closely match job growth in the area which would conceivably reduce vehicle miles traveled, and therefore, not impact air quality as significantly as might be expected.

LU-3.1.P1 Prior to or concurrent with approval of any development applications, a specific plan shall be prepared and approved for the Greenville BART TOD. The specific plan shall provide detailed guidance for project-related land use, provision and financing of public services and facilities, open space preservation, visual resources, and recreational amenities, and shall include mitigation measures to reduce the impacts of individual projects on existing neighborhoods and environmental resources.

LU-4.2.P2 The use of “green construction” and land development techniques shall be encouraged as a means to reduce the environmental impacts of construction activity.

LU-4.2.P3 Encourage all additions and new development to follow green building practices for design, construction, and operation and to incorporate as many LEED™ prerequisites and credits as feasible.

LU-4.2.A1 Use the Housing Implementation Program, design review process, and specific plans to ensure that development meets community concerns for visual quality and environmental sensitivity.

LU-4.3.P1 Industrial development shall be subject to design principles and performance standards consistent with General Plan policies.

Circulation Element

CIR-1.1.P4 Mixed-use development shall be located near transit nodes and adjacent to residential neighborhoods, as identified in the Land Use Element.

CIR-1.3.P2 The City shall consider using traffic calming methods to reduce local cut-through traffic, where appropriate.

CIR-2.1.P1 The City shall maximize the carrying capacity of arterial roadways by providing a well-coordinated traffic/signal control system, controlling the number of intersections and driveways, limiting residential access points, and requiring sufficient off-street parking.

CIR-3.1.A5 Preserve right-of-way adjacent to I-580 to allow widening for HOV lanes, auxiliary lanes, and BART.

CIR-3.1.A6 Advocate the expansion of the ACE passenger railroad service through Livermore.

CIR-3.1.A7 Work with regional transit providers to situate transit stops and hubs at locations that are convenient for transit users and promote increased transit ridership through the provision of shelters, benches, and other amenities.

CIR-3.2.A1 Work with employers to encourage ridesharing (carpools and vanpools), public transit, bicycling, walking, flexible working hours, and preferential parking.

CIR-3.2.A2 Coordinate with Caltrans and transit providers to identify and implement park and ride sites with convenient access to public transit.

CIR-3.3.P1 Develop a comprehensive bikeway and trails system as a viable alternative to the automobile for all trip purposes in order to maximize the number of daily trips made by non-motorized means for residents of all abilities.

CIR-3.3.P2 Consider bicycle, pedestrian, and equestrian access in all aspects of City Planning and coordinate with other agencies to improve non-motorized access within the City of Livermore and to surrounding regional areas and facilities.

CIR-3.3.P3 Provide related facilities and services necessary to allow bicycle, pedestrian, and equestrian travel to assume a significant role as a local alternative mode of transportation and recreation.

CIR-3.4.P1 The City shall ensure the safe and convenient movement of pedestrians throughout the City and within neighborhoods.

CIR-3.4.P2 The City's design guidelines for public and private facilities shall aid and encourage pedestrian activity.

CIR-5.1.A2 Utilize traffic calming, as appropriate, to control the traffic volume and speed.

CIR-6.1.P1 Promote pedestrian activity as the primary mode of travel in Downtown.

CIR-7.1.P1 Support State and regional efforts to improve I-580 within the Tri-Valley with HOV lanes, auxiliary lanes, and ramp metering.

CIR-7.1.A1 Participate in programs to address regional traffic congestion.

CIR-7.1.A3 Support regional air quality objectives through effective management of the City's transportation system.

Safety Element

PS-4.1.P1 Residual repositories shall be prohibited within the City limits.

PS-4.1.P2 Areas with a land use designation of High Intensity Industrial are appropriate for hazardous waste management facilities if other siting criteria can be met and potential environmental impacts are mitigated as part of conditional approval.

PS-4.1.P3 The City shall promote the safe transport of hazardous materials through Livermore through implementation of the following measures:

- Maintain formally-designated hazardous material carrier routes to direct hazardous materials away from populated and other sensitive areas;
- Prohibit the parking of vehicles transporting hazardous materials on City streets;
- Require that new pipelines and other channels carrying hazardous materials avoid residential areas and other immobile populations to the greatest extent possible.

PS-4.1.P5 When reviewing applications for new development in areas historically used for commercial or industrial uses, the City shall require environmental investigation as necessary to ensure that soils, groundwater, and buildings affected by hazardous material releases from prior land uses, and lead and asbestos potentially present in building materials, would not have the potential to affect the environment or the health and safety of future property owners or users.

PS-4.1.P7 The City shall ensure that new development and redevelopment shall protect the public health and safety through environmental investigations, as required by State and Alameda County regulations, relating to potential hazardous material releases from prior uses and lead and asbestos present in building materials.

PS-4.1.A1 Continue to implement processing procedures and local siting criteria in order to implement relevant and applicable provisions consistent with the hazardous materials and waste management plans for Alameda County.

b. Downtown Specific Plan. The Downtown Specific Plan does not contain policies relating directly to air quality. However, it is the intent of the City that that in those instances where the Downtown Specific Plan does not provide policy guidance, the goals, objectives and policies of the Draft General Plan will apply.

3. Impacts and Mitigation Measures

The following section analyzes potential *air quality* impacts of the proposed project, and begins by establishing the thresholds of significance for impacts. Because air quality is by nature a regional issue, the analysis of both the Draft General Plan and the Downtown Specific Plan are combined for this topic. Where potentially significant adverse impacts are identified, mitigation measures are recommended.

a. Criteria of Significance. The Bay Area Air Quality Management District (BAAQMD) has developed thresholds of significance specifically for “local plans,” which include the general plans of cities. The BAAQMD has also established thresholds for emissions from the project once it is constructed and operational. For construction-period impacts, the BAAQMD emphasizes implementation of control measures rather than significance criteria.

(1) BAAQMD Thresholds for Local Plan Consistency. BAAQMD has determined that inconsistency with the *Bay Area 1997 Clean Air Plan (CAP)*, the most recently adopted regional air quality plan, would be considered a significant impact. According to the BAAQMD, the following criteria must be satisfied for a local plan to be determined consistent with the CAP and not result in a significant air quality impact.

- The local plan is consistent with the CAP Population and Vehicle Miles Traveled (VMT) assumptions. This is demonstrated if the population growth over the planning period will not exceed the values included in the current CAP.¹ CAP population assumptions are those identified in the most recent version of the Association of Bay Area Governments (ABAG) Projections report.²
- Determining consistency of local plans with the CAP also involves assessing whether CAP transportation control measures (TCMs), for which local governments are implementing agencies, are indeed being implemented. Local plans that do not demonstrate reasonable efforts to implement TCMs in the CAP would be considered inconsistent with the regional air quality plan and would therefore have a significant air quality impact.

¹ BAAQMD guidance includes a second criterion that the rate of increase in VMT for the jurisdiction be no greater than the rate of increase in population. This criterion was based on Health and Safety Code Section 40919(d) which established this performance standard for districts classified as serious nonattainment areas under the California Clean Air Act. Subsequent to the publication of the BAAQMD guidelines this section of the Health and Safety Code was amended and this requirement eliminated.

² The most recent ABAG projections document is the *ABAG Projections 2002* published in December 2001.

- For local plans to have a less than significant impact with respect to potential odor and/or toxic air contaminants, buffer zones should be established around existing and proposed land uses that would emit these air pollutants.

(2) BAAQMD Thresholds for Construction Emissions. Construction-related emissions are generally short-term in duration, but may still cause adverse air quality impacts. Fine particulate matter (PM₁₀) is the pollutant of greatest concern with respect to construction activities. The BAAQMD's approach to CEQA analyses of construction impacts is to emphasize implementation of effective and comprehensive control measures rather than detailed, quantified emission thresholds and forecasts.

(3) BAAQMD Thresholds for Operational Emissions. For many types of land use development, such as residential subdivisions, office parks, shopping centers and other "indirect sources," motor vehicles traveling to and from locations within the project area represent the primary source of air pollution. The significance thresholds listed below apply to these indirect source emissions.

Local Carbon Monoxide Concentrations. As required by BAAQMD, the local Carbon Monoxide (CO) concentrations should be estimated for projects in which:

- vehicle emissions of CO would exceed 550 pounds/day;
- project traffic would impact intersections or roadway links operating at Level of Service (LOS) D, E or F or would cause LOS to decline to D, E, or F; or
- project traffic would increase traffic volumes on nearby roadways by 10 percent or more.

Once estimated (having met one of the above triggers), CO concentrations exceeding the California Ambient Air Quality Standard of 9 parts per million (ppm) averaged over 8 hours and 20 ppm averaged over one hour would be considered a significant impact.

Total Emissions. BAAQMD requires that total emissions from project operations should be compared to the thresholds provided below for four "criteria" pollutants. Total operational emissions evaluated under the following thresholds should include all emissions from motor vehicle use associated with the proposed project. Projects that emit criteria air pollutants in excess of the levels indicated below would be considered to have a significant air quality impact.

- Reactive Organic Gases (ROG): 80 pounds/day; 36 kgm/day; 15 tons/year
- Oxides of Nitrogen (NO_x): 80 pounds/day; 36 kgm/day; 15 tons/year
- Fine Particulate Matter (PM₁₀): 80 pounds/day; 36 kgm/day; 15 tons/year
- Carbon Monoxide (CO): 550 pounds/day (see local CO emissions thresholds identified above)

Cumulative Impacts Thresholds. Any proposed project which would individually have a significant air quality impact would also be considered to have a significant cumulative air quality impact. For any project that does not individually have a significant operational cumulative air quality impact, the determination of significant cumulative impact should be based on an evaluation of the consistency of the project with local general plans and of the general plan with the regional air quality plan (i.e., the CAP).

Implementation of the Livermore Draft General Plan and Downtown Specific Plan would also result in a significant air quality impact if the project would:

- Expose sensitive receptors to substantial pollutant concentrations; or
- Create objectionable odors affecting a substantial number of people.

b. Impacts and Mitigation Measures. The following subsection evaluates potential air quality impacts associated with implementation of the Draft General Plan and Downtown Specific Plan. Where potentially significant impacts of the proposed project are found, mitigation measures are recommended.

(1) Less-than-Significant Impacts. Following is a discussion of less-than-significant impacts associated with implementation of the project.

Clean Air Plan Consistency in Terms of Population Growth. The Draft General Plan and Downtown Specific Plan would allow and encourage employment and population growth that would lead to the generation of additional air emissions. The City projects that implementation of Draft General Plan policies would result in a projected population of 105,077 in 2025. ABAG projects that by year 2025, the City will grow to a population of 99,400 within the City limits with an additional 7,400 (for a total population of 106,800) in the City's Planning Area. ABAG's population projections for the Planning Area are consistent with the Draft General Plan population projections (which include the Greenville BART Transit Oriented Development area, much of which is outside the City limits). Therefore, because the Draft General Plan and Downtown Specific Plan projected population increase would be consistent with ABAG projections for Livermore, the project would also be consistent with the assumptions included in the current CAP emissions inventory.

Implementation of TCMs. Policies and actions of the Draft General Plan and Downtown Specific Plan that would constitute implementation of CAP TCMs are CIR-1.1.P4, CIR-1.3.P2, CIR-2.1.P1, CIR-3.1.A5, CIR-3.1.A6, CIR-3.1.A7, CIR-3.2.A1, CIR-3.2.A2, CIR-3.3.P1, CIR-3.3.P3, CIR-3.4.P1, CIR-3.4.P2, CIR-5.1.A2, CIR-6.1.P1, CIR-7.1.A3. These policies would support transit-oriented and mixed-use development; promote traffic calming measures; improve arterial traffic management; promote transit use and improvements; support employer-based trip reduction programs; improve bicycle access and facilities; promote pedestrian travel; and incorporate local clean air plans and policies. Therefore, the Draft General Plan and Downtown Specific Plan demonstrates reasonable efforts to implement the TCMs in the CAP.

Odors and Toxic Emissions. Specific activities allowed within each of the major Draft General Plan land use categories could raise concerns among neighbors regarding odors. Sources of odors can include restaurants, manufacturing plants, and agricultural operations. The Livermore Water Reclamation Plant is also an odor producer within the Planning Area. Additionally there is the potential for conversion of industrial uses to residential uses in the East Side area. However, the Draft General Plan and Downtown Specific Plan do not contain policies that promote the development of uses that would expose sensitive receptors to substantial pollutant concentrations or that would create objectionable odors affecting a substantial number of people. Sources that generate objectionable odors must comply with air quality regulations; however, the public's sensitivity to locally produced odors may exceed regulatory thresholds. Implementation of Draft General Plan policies OSC-6.1.P2 and LU-4.3.P1 would ensure that sensitive receptors (such as residences, schools and hospitals) are

adequately buffered from industries that emit or generate toxic emissions by not allowing the construction of residences near them, or conversely, the construction of industries that emit toxins near sensitive receptors. Additionally, the Draft General Plan contains planning policies and zoning measures (e.g., LU-4.3.P2, PS-4.1.P2, P3, A1 and A2) the objective of which is to protect sensitive uses from odors and toxic air contaminants and address the public safety aspects of the use and storage of toxic or hazardous materials (e.g., policies PS-4.1.P1, P5 and PS-4.1.P7). Implementation of these policies would reduce potential impacts associated with odors and toxic emissions to a less-than-significant level and ensure consistency with the CAP.

The project meets all criteria for consistency with the regional air quality plan; and, therefore, regional air quality impacts associated with CAP consistency would be considered less than significant.

Construction Emissions. Growth in employment and housing uses associated with implementation of the Draft General Plan and Downtown Specific Plan would increase construction activities within the Planning Area. Construction activities cause combustion emissions from utility engines, heavy-duty construction vehicles, equipment hauling materials to and from construction sites, and motor vehicles transporting construction crews. Exhaust emissions from construction activities vary daily as construction activity levels change. The use of construction equipment results in localized exhaust emissions. Construction-related emissions are generally short-term in duration, but may still cause adverse air quality impacts. Fine particulate matter (PM₁₀) is the pollutant of greatest concern with respect to construction activities. The BAAQMD's approach to CEQA analyses of construction impacts is to emphasize implementation of effective and comprehensive control measures rather than detailed quantification of emissions.

The BAAQMD has identified a set of feasible PM₁₀ control measures for construction activities (shown in Table IV.G-1). The "Basic Measures" should be implemented at all construction sites, regardless of size. The "Enhanced Measures" should be implemented at larger construction sites (greater than 4 acres), where PM₁₀ emissions generally will be higher. The "Optional Measures" may be implemented if further emission reductions are deemed necessary for specific projects by the City of Livermore.

Any demolition activity subject to but not complying with the requirements of District Regulation 11, Rule 2 (which regulates the removal of asbestos-containing materials), would be considered to have significant project impacts. In addition, the demolition, renovation, or removal of asbestos-containing building materials is subject to the limitations of BAAQMD Regulation 11, Rule 2: Hazardous Materials; Asbestos Demolition, Renovation and Manufacturing. The BAAQMD's Enforcement Division should be consulted prior to commencing demolition of a building containing asbestos building materials. Failure to comply with this procedure would constitute a significant project impact. Implementation of Draft General Plan policies PS-4.1.P5 and P7 would support this requirement. Implementation of Policy OSC-6.1.P1 from the Draft General Plan would require project developers to be consistent with the dust and emission-abatement actions required by the BAAQMD. Implementation of these policies would reduce air quality impacts associated with construction activities to a less-than-significant level.

Operational Emissions – CO Analysis. Vehicular traffic associated with growth projected in the Draft General Plan would emit Carbon Monoxide (CO) into the air along roadway segments and near intersections. Because CO does not readily disperse, areas of vehicle congestion can create

Table IV.G-1: Feasible Control Measures for Construction Emissions of PM₁₀

<p>Basic Control Measures – The following controls should be implemented at all construction sites.</p> <ul style="list-style-type: none"> • Water all active construction areas at least twice daily. • Cover all trucks hauling soil, sand, and other loose materials <i>or</i> require all trucks to maintain at least 2 feet of freeboard. • Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas and staging areas at construction sites. • Sweep daily (preferably with water sweepers) all paved access roads, parking areas and staging areas at construction sites. • Sweep streets daily (preferably with water sweepers) if visible soil material is carried onto adjacent public streets.
<p>Enhanced Control Measures – The following measures should be implemented at construction sites greater than 4 acres in area.</p> <ul style="list-style-type: none"> • All “Basic” control measures listed above. • Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas. • Enclose, cover, water twice daily or apply (non-toxic) soil binders to exposed stockpiles (dirt, sand, etc.). • Limit traffic speeds on unpaved roads to 15 mph. • Install sandbags or other erosion control measures to prevent silt runoff to public roadways. • Replant vegetation in disturbed areas as quickly as possible.
<p>Optional Control Measures – The following control measures are strongly encouraged at construction sites that are large in area, located near sensitive receptors or which for any other reason may warrant additional emissions reductions.</p> <ul style="list-style-type: none"> • Install wheel washers for all exiting trucks, or wash off all trucks and equipment leaving the site. • Install wind breaks, or plant trees/vegetative wind breaks at windward side(s) of construction areas. • Suspend excavation and grading activity when winds exceed 25 mph. • Limit the area subject to excavation, grading and other construction activity at any one time.

Source: BAAQMD CEQA Guidelines, 1999.

pockets of high CO concentrations, called “hot spots.” Typically, high CO concentrations are associated with roadways or intersections operating at deficient levels of service (LOS) or with extremely high traffic volumes. Table IV.G-2 lists the one-hour and eight-hour CO concentrations under the existing conditions at ten intersections that were identified by the City to have either the worst LOS or the highest peak hour turn volumes. Based on the methodology suggested by the U.S. EPA and California Department of Transportation, the higher of the second highest CO concentrations monitored at the nearest air monitoring station (located at 793 Rincon Avenue, in the City of Livermore) in the past two years (in this case, 4.7 ppm for the one-hour period and 3.1 ppm for the eight-hour period), were used as the background CO concentrations.

Table IV.G-2 shows that all of the existing one-hour or eight-hour CO concentrations are below the federal and State CO standards. The one-hour CO level ranges from 5.4 ppm to 8.4 ppm, much lower than the State standard of 20 ppm and the federal standard of 35 ppm. The eight-hour CO level ranges from 3.6 ppm to 5.7 ppm, also much lower than the State and federal standards of 9 ppm.

Table IV.G-2 lists the one-hour and eight-hour CO concentrations under the future (2025) conditions at the same 10 study intersections that were identified to have either the worst LOS or the highest peak hour turn volumes. Table IV.G-2 shows that all of the future 2025 one-hour or eight-hour CO concentrations would be below the federal and State CO standards. The one-hour CO levels range from 5.1 ppm to 5.7 ppm, much lower than the State standard of 20 ppm and the federal standard of 35 ppm. The eight-hour CO levels range from 3.4 ppm to 3.8 ppm, also much lower than the State and federal standards of 9 ppm.

Implementation of the following Draft General Plan policies would further minimize vehicular-related local air quality CO hot spot impacts: OSC-6.1.P3, OSC-6.1.P5, OSC-6.1.P6, and OSC-6.1.P7 by working to reduce vehicle and industrial emissions, reducing commuting rates, and encouraging the improvement and use of local and regional transit systems.

Fugitive Dust From Ongoing Activities. Ongoing activities associated with land uses proposed for expansion in the Draft General Plan (e.g., agricultural, industrial, landscaping, park maintenance) can create fugitive dust that can adversely affect the public's health. Fugitive dust refers to particles that are disturbed by construction or other human activity and spread beyond the boundaries of the source area, creating a nuisance or health hazard. Fugitive dust is one of the primary components of particulate matter (PM₁₀) in the Bay Area. The EPA considers PM₁₀ the air pollutant most closely associated with premature death. Within the Draft General Plan area, most fugitive dust is a result of construction (discussed above) and agriculture. Adjacent to the western and southern boundaries of the City, but outside City limits and City control, are gravel quarries that are also high dust producers. The City addresses fugitive dust issues for new development projects by requiring that the BAAQMD Feasible Control Measures be enforced under the project's Conditions of Approval. Implementation of policy OSC-6.1.A21 calling for the coordination with other local and regional agencies to identify programs to address the problem would reduce this impact to a less-than-significant level.

Table IV.G-2: Carbon Monoxide Concentrations

Intersection	Distance To Receptor Location From Roadway Centerline (Meters)	2003 CO Concentration 1 Hour/8 Hour	2025 CO Concentration 1 Hour/8 Hour
Isabel Avenue & Jack London Boulevard	15	6.3/4.2	5.5/3.7
	17	6.3/4.2	5.4/3.6
	19	6.1/4.1	5.3/3.5
	19	6.1/4.1	5.3/3.5
Las Positas Road & First Street	17	7.7/5.2	5.4/3.6
	17	7.6/5.1	5.3/3.5
	17	7.6/5.1	5.3/3.5
	17	7.5/5.1	5.3/3.5
Railroad Avenue & First Street	8	7.9/5.3	5.6/3.7
	8	7.8/5.3	5.4/3.6
	12	7.8/5.3	5.4/3.6
	12	7.7/5.2	5.3/3.5
Holmes Street & Concannon Boulevard	14	7.3/4.9	5.2/3.5
	14	7.2/4.9	5.2/3.5
	14	7.2/4.9	5.2/3.5
	14	7.1/4.8	5.1/3.4
N. Livermore Avenue & Portola Avenue	14	7.4/5.0	5.2/3.5
	14	7.2/4.9	5.2/3.5
	15	7.2/4.9	5.2/3.5
	15	7.1/4.8	5.1/3.4
N. Mines Road & First Street	14	8.4/5.7	5.3/3.5
	14	8.3/5.6	5.3/3.5
	17	8.0/5.4	5.3/3.5
	17	7.9/5.3	5.2/3.5
Mines Road & East Avenue	7	6.9/4.6	5.4/3.6
	7	6.8/4.6	5.3/3.5
	12	6.8/4.6	5.3/3.5
	14	6.8/4.6	5.3/3.5
Las Positas Road & S. Vasco Road	15	7.2/4.9	5.3/3.5
	17	7.2/4.9	5.3/3.5
	17	7.2/4.9	5.2/3.5
	17	6.7/4.5	5.2/3.5
N. Vasco Road & Northfront Road	12	7.5/5.1	5.7/3.8
	12	7.4/5.0	5.5/3.7
	15	7.4/5.0	5.6/3.7
	17	7.2/4.9	5.4/3.6
Collier Canyon Road & North Canyons Parkway	12	5.5/3.7	5.2/3.5
	12	5.5/3.7	5.2/3.5
	14	5.4/3.6	5.2/3.5
	14	5.5/3.6	5.1/3.4

Source: LSA Associates, Inc., May 2003.

Household Emissions. The construction of additional housing and population growth associated with the Draft General Plan and Downtown Specific Plan could lead to an increase in wood smoke from fireplaces, barbecues, and associated air pollutant emissions. Wood smoke contains pollutants

such as CO and particulate matter, as well as respiratory irritants such as phenols, aldehydes, quinones, nitrogen oxides, and sulphur oxides. Wood smoke aggravates respiratory illness such as asthma and emphysema and may increase cancer risks by providing a vehicle through which toxic particles can reach the lungs.

The Livermore Municipal Code currently requires that any wood burning stoves placed in new residential or commercial buildings be one of the following:

- A pellet-fueled wood heater;
- An EPA certified wood heater;
- A masonry fireplace;
- A wood burning fireplace with a decorative gas log insert;
- A wood burning appliance that has been certified by the Northern Sonoma Air Pollution Control District.

In addition to that ordinance, implementation of policies LU.4.2.P2, P3 and A2 that require “green” construction practices and a design review process to ensure that environmental concerns (such as air quality impacts) are addressed during the construction of new homes would reduce this impact to a less-than-significant level.

(2) **Significant Impacts.** Two significant and unmitigable impacts related to air quality are identified and evaluated below.

Impact AQ-1: The Draft General Plan and Downtown Specific Plan would allow employment and population growth that would generate additional air emissions from vehicular travel. (S)

Long-term air emission impacts are those associated with automobile travel within the City. Mobile source emissions would result from vehicle trips associated with increased vehicular travel. As is true throughout much of the U.S., motor vehicle use is projected to increase substantially within the Draft General Plan area and the region. However, emission factors associated with vehicle exhaust are anticipated to decrease substantially from their corresponding existing levels due to advanced vehicle technology and improved fuels.

Based on the projected citywide vehicle miles traveled (VMT) for all trips related to work, shopping, social recreation, schools, and non-home based travel, and the associated average trip length and vehicle speed, Table IV.G-3 lists the daily emissions (in terms of pounds per day) for the existing conditions as well as the future 2025 Draft General Plan buildout.

Table IV.G-3: Regional Vehicular Emissions

SCENARIO	Emissions (Pounds/Day)				
	ROG	CO	NO _x	SO _x	PM ₁₀
2002 Existing Condition	4,832	92,851	24,095	202	728
2025 Draft General Plan	938	23,860	6,365	104	910
BAAQMD Thresholds	80	550	80	NA	80

NA = Not available. BAAQMD does not have an emissions threshold for SO_x.
Source: LSA Associates, Inc., 2003.

Due to anticipated decrease in emission factors in the future from advanced technology and improved fuels,

emissions associated with all future project scenarios would be lower than the existing emissions, except for the emissions of suspended particulate (PM_{10}).

In addition to the Draft General Plan policies previously identified to implement regional TCMs, the following Draft General Plan policies also would minimize regional air quality impacts: OSC-6.1.P3, OSC-6.1.P5, OSC-6.1.P6, and OSC-6.1.P7. However, total emissions from vehicle travel would continue to exceed the thresholds established by the BAAQMD, and therefore, this impact is considered significant and unavoidable. The BAAQMD, local jurisdictions, and other parties responsible for protecting public health and welfare will continue to seek ways of minimizing the air quality impacts of growth and development in order to avoid further exceedances of the standards.

Mitigation Measure AQ-1: No mitigation measures are available to reduce this impact to a less-than-significant level. (SU)

Impact AQ-2: The Draft General Plan and Downtown Specific Plan would allow employment and population growth that would contribute to a cumulative air quality impact. (S)

As stated in the BAAQMD thresholds, any project that would individually have a significant air quality impact would also be considered to have a significant cumulative air quality impact. Therefore, because growth associated with the Draft General Plan and Downtown Specific Plan would cause significant operational air quality impacts, the project would also have a significant cumulative air quality impact.

Mitigation Measure AQ-2: No mitigation measures are available to reduce this impact to a less-than-significant level. (SU)

H. NOISE

This section describes the existing noise environment within the Planning Area and vicinity, summarizes relevant plans and policies, and evaluates potential impacts resulting from implementation of the project (i.e., the Draft General Plan and Downtown Specific Plan). The evaluation of environmental effects presented in this section focuses on potential noise impacts on residents and sensitive receptors within the City of Livermore. Noise impacts potentially resulting from implementation of the project are analyzed, and mitigation measures are recommended as necessary.

1. Setting

The Environmental Impact Report (EIR) setting information for noise is contained in Volume I: Master Environmental Assessment (MEA). Please refer to Chapter 10, Noise, in the MEA for a complete discussion of existing noise levels, noise generators, “sensitive receptors” (i.e., land uses or areas, such as residential neighborhoods or schools, where occupants are sensitive to noise), and the regulatory framework, agencies, and plans concerned with noise. Appendix F in the Technical Appendices document (bound separately) contains the background technical information for the noise analysis.

2. Guiding Documents

This subsection identifies policies contained in the Draft General Plan and the Downtown Specific Plan pertaining to noise. The policies and actions identified below have been carefully selected so as to include only those that could directly relate to potential impacts or represent mitigations when it comes to noise and the criteria of significance set forth in subsection 3a below. A complete list of Draft General Plan policies is contained in Appendix B of this EIR. Note that goals, objectives, policies and actions from the South Livermore UGB Initiative or the North Livermore UGB Initiative are identified in *italics* and are noted as initiative language in the Draft General Plan.

a. Draft General Plan. The Draft General Plan Noise Element contains policies and actions that address potential noise problems in the community; in the interest of brevity, not all of them are listed.

Noise Element

N-1.1.P1 The City shall emphasize noise considerations when making land use planning decisions.

N-1.1.P3 The City shall maintain a pattern of land uses that separates noise-sensitive land uses from major noise sources to the extent possible.

N-1.1.P4 The City shall use the Land Use Compatibility Guidelines (measured in dBA CNEL or L_{dn}) contained in Table 9-7 (*note to reader: reproduced as Table IV.H-1 in this EIR section*) in this Element to direct the siting, design, and insulation of new development to reduce exposure to excessive noise. Where warranted, the City shall employ discretionary review of new development to ensure that the community will be protected from excessive noise levels. The City shall evaluate potential noise impacts and recommend mitigation measures through discretionary review procedures such as environmental review, design review, and evaluation of use permits.

N-1.1.P5 Review development proposals with respect to the Land Use Compatibility Guidelines in Table 9-7 as follows:

- (a) **Normally Acceptable:** If the noise level is within the “normally acceptable” level, noise exposure would be acceptable for the intended land use. Development may occur without requiring an evaluation of the noise environment unless the use could generate noise impacts on adjacent uses.
- (b) **Conditionally Acceptable:** If the noise level is within the “conditionally acceptable” level, noise exposure would be conditionally acceptable; a specified land use may be permitted only after detailed analysis of the noise environment and the project characteristics to determine whether noise insulation or protection features are required. Such noise insulation features may include measures to protect noise-sensitive outdoor activity areas (e.g., at residences, schools, or parks) or may include building sound insulation treatments such as sound-rated windows to protect interior spaces in sensitive receptors.
- (c) **Normally Unacceptable:** If the noise level is within the “normally unacceptable” level, analysis and mitigation are required. Development should generally not be undertaken unless adequate noise mitigation options have been analyzed and appropriate mitigations incorporated into the project to reduce the exposure of people to unacceptable noise levels.

Table IV.H-1: Land Use Compatibility Guidelines

Land Use	Normally Acceptable ^a (dBA CNEL)	Conditionally Acceptable ^a (dBA CNEL)	Normally Unacceptable ^a (dBA CNEL)	Clearly Unacceptable ^a (dBA CNEL)
Residential-Low Density, Single-Family, Duplex, Mobile Homes	□60	55-70	70-75	>75
Residential Multi-Family	□65	60-70	70-75	>75
Transient Lodging, Hotels, Motels	□65	60-70	70-80	>80
School, Library, Church, Hospital, Nursing Home	□70	60-70	70-80	>80
Auditorium, Concert Hall, Amphitheater	-	<70	-	>65
Sports Arena, Outdoor Spectator Sports	-	<75	-	>70
Playground, Neighborhood Park	□70	-	70-75	>75
Golf Course, Water Recreation, Cemetery	□75	-	70-80	>80
Office Building, Business Commercial, Professional, Retail	□70	70-75	>75	-
Industrial, Manufacturing, Utilities, Agricultural	□75	70-80	>75	-

^a Where dBA CNEL levels overlap between these categories, determination of noise level acceptability will be made on a project-by-project basis.

Note: Draft General Plan Table 9-7 is reproduced above as Table IV.H-1.

Source: Design, Community and Development, 2003.

N-1.1.P6 In an effort to support active uses in the Downtown Area, exterior noise levels of up to 75 dBA CNEL would be considered Normally Acceptable for all uses. For residential development, interior noise levels of up to 45 dBA CNEL would be considered Normally Acceptable.

N.1.2.P1 When crafting mitigation programs for adverse noise exposure from new development, the City shall encourage the use of noise attenuation programs that avoid constructing sound walls.

N-1.2.P2 The City shall require applicants for new noise-sensitive development, such as schools, residences, and hospitals, in areas subject to noise levels greater than 65 dBA CNEL to obtain the services of a professional acoustical engineer to provide a technical analysis and to design of mitigation measures to attenuate noise to acceptable levels.

N-1.2.P3 The City shall require the control of noise at the source for new development deemed to be noise generators through site design, building design, landscaping, hours of operation, and other techniques.

N-1.2.P4 The City shall require operational limitations and feasible noise buffering for new uses that generate significant noise near sensitive uses.

N-1.2.P5 During all phases of construction, the City shall take measures to minimize the exposure of neighboring properties to excessive noise levels from construction-related activity.

N-1.2.P6 The City shall require mitigation measures to minimize noise impacts on surrounding areas as part of the permit review process for land uses of a temporary nature, such as fairs or exhibits. The noise level from the temporary use should be in conformance with the noise level guidelines for nearby land uses.

N-1.2.P7 The City shall seek to reduce impacts from ground borne vibrations associated with rail operations by requiring that habitable buildings are sites at least 100 feet from the centerline of the tracks whenever feasible.

N-1.2.A1 Promote use of noise insulation materials in new construction and major rehabilitation.

N-1.2.A2 Identify noise attenuation programs for mitigation of noise adjacent to existing residential areas, including such measures as wider setbacks, intense landscaping, double-pane windows, and building orientation away from the noise source.

N-1.3.A1 Enforce City, State and federal noise levels standards.

N-1.3.A2 Continue to enforce the City's Noise Ordinance to reduce noise impacts.

N-1.3.A3 Revise the Noise Ordinance, as necessary, to improve the City's ability to reduce noise impacts.

N-1.3.A4 Work with other public agencies to address both existing and potential noise impacts resulting from public agency activities. Cooperate with other public agencies in determining the appropriate mitigation measures necessary to meet City noise guidelines.

N-1.4.P2 The City shall minimize potential transportation noise through proper design of street circulation, coordination of routing, and other traffic control measures.

N-1.4.P3 The City shall provide planned industrial areas with truck access routes separated from residential areas to the maximum feasible extent. Consider methods to restrict truck travel times in sensitive areas.

N-1.4.P4 The City shall require exterior noise in backyards to be Normally Acceptable at a maximum of 60 dBA CNEL for single-family development and a maximum of 65 dBA CNEL for multi-family development.

N-1.4.P5 The City will consider sound walls as a means of noise mitigation along proposed and existing roadway segments and railroad right-of-ways only after other noise attenuation programs such as building construction, larger landscaped berms, and distances have been considered to reduce noise to appropriate levels in residential areas.

N-1.4.A4 Implement the Neighborhood Traffic Calming Program to encourage motorists to slow down thereby decreasing noise levels in all residential areas.

N-1.4.A5 Prior to the construction or implementation of future transit systems, quantify noise levels and assess impacts generated by vehicle noise. Identify noise impacts of transit vehicles (such as BART) on existing development and evaluate the transit project's compatibility with existing land use. Develop mitigation measures to ensure that existing development areas are not subject to excessive noise levels from proposed transit improvements.

N-1.5.P1 The City shall require that industrial and commercial uses be designed and operated so as to avoid the generation of noise effects on sensitive land uses (e.g., residential, churches, schools, hospitals) from exceeding the following noise levels:

- (a) 55 dBA L₅₀ (7:00 a.m.–10:00 p.m.)
- (b) 45 dBA L₅₀ (10:00 p.m.–7:00 p.m.)

N-1.5.P2 In order to allow for temporary construction, demolition or maintenance noise and other necessary short-term noise events, the stationary source noise standards in Policy P1, above, may be exceeded within the receiving land use by:

- (a) 5 dBA for a cumulative period of no more than fifteen (15) minutes in any hour.
- (b) 10 dBA for a cumulative period of no more than five (5) minutes in any hour.
- (c) 15 dBA for a cumulative period of no more than one (1) minute in any hour.

N-1.5.P3 In order to allow for temporary construction, demolition or maintenance noise and other necessary short-term noise events, the stationary noise standards in Policy N-1.5, P1, above, shall not be exceeded within the receiving land use by more than 15 dBA for any period of time.

N-1.5.P4 The following sources of noise are exempt from this standard: motor vehicles on public streets; trains; emergency equipment, vehicles, devices, and activities; temporary construction, maintenance, or demolition activities conducted between the hours of 6:00 a.m. and 7:00 p.m.

b. Downtown Specific Plan. The Downtown Specific Plan contains the following policy language that specifically relates to noise in Chapter 4, Land Use and Development Policies, Chapter 5, Development Standards and Chapter 10, Implementation, as follows:

Right to Downtown Operations. In order to protect the vibrant uses intended for the Downtown Core from conflicts with other private and public uses in the Downtown, and to ensure that all uses in the Downtown are “good neighbors” that can co-exist compatibly, a Notice of “Right To Downtown Operations” shall be made available to all property owners, tenants and users of property in the Downtown. This notice is intended to advise stakeholders within the Downtown Specific Plan area of the aspects and inconveniences associated with Downtown living and business operations.

6.3 Open Space E. Iron Horse Trail: All new developments located on parcels backing onto the Southern Union Pacific right-of-way from Murrieta Blvd. East to North Livermore Avenue, shall be required to provide a 20-foot dedication south of the existing right-of-way, to be reserved for the Iron Horse Multi-Use Trail. Developments shall be required to provide improvements to the trail.

7.1 Exterior Noise Levels A. Exterior noise levels may not exceed a maximum exterior decibel rating of 75 dBA.

7.1 Interior Noise Levels. B. All Residential – All residential building spaces must be improved or constructed in such a manner that noise levels do not exceed a maximum decibel rating of 45 dBA.

Noise Easement Requirement. As a condition of final map approval, the owners of all property filing a tract or parcel map within the Downtown Specific Plan area shall grant a right to Downtown operations easement to the City of Livermore, granting businesses, residences, civic, cultural, and other permitted temporary and permanent uses within the Downtown Specific Plan area the right to generate noise, odors, traffic, light and glare, pedestrian activity, music, festivals, street closures, traffic re-routing, railroad operations, outdoor sales, 24-hour activity and other permitted uses that may occur within the Downtown Specific Plan area, so that such purchasers, tenants and users will understand, and be prepared to accept such inconveniences, and to be free from complaints or future legal action by the owners, residents or tenants of the subdivided property. Deeds for

all lots subdivided within the Downtown Specific Plan area shall include a disclosure statement that identifies the potential for noise, the character of the noise, and the terms and conditions of the easement held by the City of Livermore.

3. Impacts and Mitigation Measures

The following subsection reviews the potential adverse impacts associated with *noise* of the proposed project. It begins by establishing the thresholds of significance for impacts and then evaluates the two components of the proposed project: the Draft General Plan and the Downtown Specific Plan. Where potentially significant impacts of the proposed project are found, mitigation measures are recommended.

a. Criteria of Significance. Implementation of the Livermore Draft General Plan and Downtown Specific Plan would have significant noise impacts if the project would:

- Expose persons to or generate noise levels in excess of standards established in the City's Noise Ordinance.
- Expose persons to or generate excessive groundborne vibration or groundborne noise levels; or
- Increase permanent, temporary, or periodic ambient noise levels by over 4 dBA in the project vicinity above levels existing without the project.

b. Impacts and Mitigation Measures of the Draft General Plan. This subsection evaluates potential noise impacts associated with the Draft General Plan and identifies mitigation measures to address these impacts, as necessary.

(1) Less-Than-Significant Impacts of the Draft General Plan. Less-than-significant noise impacts include noise associated with construction activities and stationary sources throughout the Planning Area and noise associated with rail operations along the railroad tracks within the Planning Area. These noise impacts are considered less-than-significant at this general ("program") level of review because policies included in the Draft General Plan would minimize the impacts, as discussed below. Project-by-project environmental review would also be necessary to ensure that noise impacts from construction activity, stationary sources, and rail operations are considered for specific projects. The Draft General Plan policies cited in this subsection provide for project-level review of noise impacts.

Construction Activity. Construction activity would occur throughout the Planning Area. Implementation of Draft General Plan policies N-1.2.P5 and N-1.5.P2, P3, and P4 would minimize potential noise impacts from construction activity by requiring the City to take steps to reduce exposure of neighboring properties to construction noise. Construction-related noise impacts of the Draft General Plan are therefore considered less-than-significant.

Stationary Sources. Development allowed by the Draft General Plan may include stationary sources of noise. For commercial or industrial uses, such noise sources may include loading/unloading operations, generators, and outdoor speakers; for residential uses, stationary noise sources may include air conditioners. These stationary sources of noise would have the potential to disturb adjacent sensitive receptors. Implementation of the following Draft General Plan policies would ensure that noise impacts from stationary sources are minimized: N-1.1.P1 through N-1.1.P3, N-1.2.P3, N-

1.2.P4, N-1.2.P6, N-1.2.A2, N-1.4.P3, N-1.5.P1 through N-1.5.P3, and N-1.5.P4. These policies would require the City to consider noise and land use compatibility issues when evaluating development proposals involving stationary noise sources. Draft General Plan impacts related to noise from stationary sources are therefore considered less-than-significant.

Noise Associated with Rail Operations. With implementation of the Draft General Plan, rail operations along the railroad tracks within the Planning Area are not anticipated to increase substantially over their current levels. Therefore, noise associated with rail operations would remain similar to the existing conditions, and impacts from the Draft General Plan are considered less-than-significant. Implementation of the following Draft General Plan policies would ensure that rail noise impacts would be minimized: N-1.1.P1 through N-1.1.P4, N-1.2.P1, N-1.2.P2, N-1.4.P4, and N-1.4.P5. These policies would require the City to consider noise and land use compatibility issues when evaluating development proposals involving or located near rail operations.

The Draft General Plan also provides for extension of the BART system to Livermore. Draft General Plan policy states that the preferred route is along the I-580 right-of-way with a station at Greenville Road (see CIR-3.1.A3). If the BART tracks and station were to be located within or immediately adjacent to the I-580 median, the BART extension would not be expected to increase noise levels substantially in this location, because noise from I-580 is already in excess of 60 dBA CNEL. (See further discussion in Section IV.C, Traffic and Circulation of this EIR.) In addition, Draft General Plan action N-1.4.A5 provides that, before construction or implementation of future transit systems, noise impacts from transit vehicles, such as BART, would be identified and mitigation measures developed to ensure that existing development areas are not subject to excessive noise levels. The City is also maintaining the right-of-way along the Union Pacific Railroad line for potential future use to provide passenger rail service. Under policy N-1.4.A5, the provider or operator of the rail system would be responsible for quantifying, analyzing, and mitigating, as necessary, noise impacts. For these reasons, noise impacts of the BART extension are considered less-than-significant at this program level of review.

Groundborne Vibration. Implementation of the Draft General Plan has the potential to result in disturbance to new residences from groundborne vibration associated with development near the Union Pacific railroad tracks. Typical sources of groundborne vibration are construction activities (e.g., blasting, pile-driving, and operating heavy-duty earth-moving equipment) and steel-wheeled. Problems, such as disturbance, due to groundborne vibration and noise from these sources are usually contained to areas within about 100 feet of the vibration source.¹ Typically, the main effect of groundborne vibration and noise is to cause annoyances for occupants of nearby buildings. The Draft General Plan would allow new development, including housing, near the Union Pacific railroad tracks, creating the potential for occupants of new buildings to be disturbed by groundborne vibration and noise from trains. New development would mainly be located in the “change areas” identified in the eastern part of the Planning Area, and in the Downtown area (see discussion of Downtown Specific Plan below). As noted above, implementation of the following Draft General Plan policies would minimize rail noise impacts: N-1.1.P1 through N-1.1.P4, N-1.2.P1, N-1.2.P2, N-1.4.P4, and N-1.4.P5. These policies would require the City to consider noise and land use compatibility issues when evaluating development proposals involving or located near rail operations.

¹ U.S. Department of Transportation, Federal Transit Administration. 1995. *Transit Noise and Vibration Impact Assessment*. April.

An additional mitigating factor for the relationship between railroad tracks and development is the Iron Horse Trail designated along the rail line by the *City of Livermore Bikeways and Trails Master Plan*. The trail is proposed to be 15 to 20 feet wide, and would be located to the south of the railroad right-of-way (which varies in width from approximately 95 to 100 feet, or 47 to 50 feet on either side of the tracks). In combination, the right-of-way and trail would create a buffer of approximately 60 to 70 feet, although the actual width may vary according to the width of the existing railroad right-of-way. The Draft General Plan action CIR-3.3.A1 supports the development of the trails identified in the Master Plan. Additionally, the Downtown Specific Plan requires a 20-foot dedication of land from new development south of the existing railroad right-of-way (see Chapter 5, Development Standards, 6.3 Open Space, item D). Additionally, implementation of policy N-1.2.P7 requires a setback for habitable buildings from the centerline of the railroad tracks and would reduce this impact to a less-than-significant level.

(2) Potentially Significant Impacts of the Draft General Plan. Potentially significant noise impacts of the Draft General Plan consist of noise associated with vehicular traffic along major roadway segments within the Planning Area and expanded operations at the Livermore Airport.

Impact NOISE-GP-1: Implementation of the Draft General Plan and Downtown Specific Plan would increase traffic noise levels along some road segments by over 4 dBA, potentially exposing residences and other land uses to excessive noise. (S)

It is anticipated that the traffic volumes on most streets within the Planning Area would increase due to growth envisioned in the Draft General Plan and Downtown Specific Plan. However, traffic volumes along certain streets may be lower than their corresponding existing volumes due to redistribution to other area roadways.

Table IV.H-2 lists projected year 2025 traffic noise levels along major roadway segments in the Planning Area under the Draft General Plan. (These traffic noise projections include development anticipated under the Downtown Specific Plan.) The table indicates, for example, that the 70 dBA CNEL contour would extend up to 132 feet from the Vasco Road roadway centerline, on the segment between I-580 and Las Positas Road, and that the 65 and 60 dBA CNEL would extend up to 275 and 589 feet, respectively, from the roadway centerline. Figure IV.H-1 depicts the projected 60 dBA CNEL noise contour, for the year 2025, along these major roadway segments.

Most roadway segments evaluated would have higher future traffic noise when compared to their corresponding existing levels.² The following roadway segments would experience a traffic noise increase of more than 4 dBA over existing levels:

- East Airway Boulevard between Kitty Hawk Road and Portola Avenue
- Collier Canyon Road between Las Positas College and North Canyons Parkway
- Fourth Street between South Livermore Avenue and Inman Street

² The following roadway segments would have lower traffic noise levels: First Street between Holmes Street and Mines Road; Murrieta Boulevard between Portola Avenue and Stanley Boulevard; North P Street between Portola Avenue and First Street; Robertson Park Road between Arroyo Road and Concannon Boulevard; and Vasco Road between Scenic Avenue and I-580.

Table IV.H-2: Projected 2025 Traffic Noise Levels Along Major Roadway Segments^a

Roadway Segment	Average Daily Traffic	Centerline to 70 CNEL ^b (Feet)	Centerline to 65 CNEL ^b (Feet)	Centerline to 60 CNEL ^b (Feet)	CNEL (dBA) 50 Feet from Outermost Lane
Airway Boulevard					
Between North Canyons Pkwy. and I-580	48,870	66	142	305	71.1
Between I-580 and Kitty Hawk Rd.	19,225	< 50	76	164	67.0
E. Airway Boulevard					
Between Kitty Hawk Rd. and Portola Ave.	29,505	< 50	101	218	68.9
Altamont Pass Road					
East of Greenville Rd.	12,804	< 50	58	125	65.3
Arroyo Road					
Between College Ave. and Robertson Park Rd.	11,725	< 50	55	118	64.9
Between Robertson Park Rd. and Vancouver Wy.	10,447	< 50	51	109	64.4
Between Vancouver Wy. and Concannon Blvd.	9,272	< 50	< 50	101	63.9
Bluebell Road					
Between Springtown Blvd. and Heather Ln.	14,465	< 50	63	136	65.8
Chestnut Street					
Between P St. and N. Livermore Ave.	10,185	< 50	< 50	107	64.3
Collier Canyon Road					
Between Las Positas College and North Canyons Pkwy.	21,965	< 50	83	179	67.6
Concannon Boulevard					
Between Isabel Ave. and Murdell Ln.	21,250	62	125	265	68.7
Between Murdell Ln. and Holmes St.	18,080	57	113	238	68.0
Between Holmes St. and Arroyo Rd.	16,390	< 50	106	223	67.5
Between Arroyo Rd. and Robertson Park Rd.	13,235	< 50	60	128	65.4
Between Robertson Park Rd. and S. Livermore Ave.	13,100	< 50	59	127	65.4
Dalton Avenue					
Between Ames St. and Vasco Rd.	7,660	< 50	< 50	89	63.0
Dolores Avenue					
Between East Ave. and Pacific Ave.	6,885	< 50	63	127	63.8
East Avenue					
Between S. Livermore Ave. and Hillcrest Ave.	24,420	67	137	291	69.3
Between Hillcrest Ave. and Mines Rd.	30,030	76	156	333	70.2
Between Mines Rd. and Vasco Rd.	24,810	68	138	294	69.3
First Street					
Between Holmes St. and P St.	11,155	< 50	53	114	64.7
Between P St. and L St.	5,305	< 50	< 50	70	61.4
Between L St. and S. Livermore Ave.	6,890	< 50	< 50	83	62.6
Between S. Livermore Ave. and Inman St.	5,380	< 50	< 50	108	62.7
Between Inman St. and Mines Rd.	39,445	89	187	400	71.3
Between Mines Rd. and I-580	57,350	116	240	513	72.3
Fourth Street					
Between Holmes St. and P St.	30,210	76	157	335	70.2
Between P St. and S. Livermore Ave.	29,875	75	156	332	70.1
Between S. Livermore Ave. and Inman St.	27,015	71	146	311	69.7
Greenville Road					
Between Northfront Rd. and Southfront Rd.	43,885	95	200	429	71.8
Between Southfront Rd. and National Dr.	35,690	84	175	374	70.9
Between National Dr. and East Ave.	20,880	61	124	262	68.6

Table IV.H-2 *continued*

Roadway Segment	Average Daily Traffic	Centerline to 70 CNEL ^b (Feet)	Centerline to 65 CNEL ^b (Feet)	Centerline to 60 CNEL ^b (Feet)	CNEL (dBA) 50 Feet from Outermost Lane
Holmes Street					
Between Fourth St. and Concannon Blvd.	41,194	92	192	411	71.5
Between Concannon Blvd. and Wetmore Rd.	23,774	66	134	286	69.1
Isabel Avenue					
Between Jack London Blvd. and Stanley Blvd.	56,475	112	237	507	72.9
Between Stanley Blvd. and Vallecitos Rd.	41,970	93	195	416	71.6
Jack London Boulevard					
Between Isabel Ave. and Murrieta Blvd.	32,895	80	166	354	70.6
Kitty Hawk Road					
Between Airway Blvd. and E. Airway Blvd.	12,210	< 50	57	121	65.1
Between E. Airway Blvd. and Jack London Blvd.	71,275	130	276	592	73.9
N. L Street					
Between Portola Ave. and Chestnut St.	14,820	< 50	99	209	67.1
L Street					
Between Chestnut St. and First St.	11,285	< 50	54	115	64.7
Between First St. and College Ave.	9,815	< 50	< 50	105	64.1
Los Positas Road					
Between N. Livermore Ave. and First St.	29,410	75	154	329	70.1
Between First St. and Vasco Rd.	26,860	< 50	95	205	68.5
Between Vasco Rd. and Greenville Rd.	29,760	75	155	331	70.1
N. Livermore Avenue					
Between I-580 and Las Positas Rd.	34,840	83	172	368	70.8
Between Las Positas Rd. and Portola Ave.	35,600	84	175	373	70.9
Between Portola Ave. and First St.	32,060	79	163	348	70.4
S. Livermore Road					
Between First St. and East Ave.	16,560	< 50	69	148	66.4
Between East Ave. and Concannon Blvd.	15,530	< 50	66	142	66.1
Between Concannon Blvd. and Tesla Rd.	17,240	< 50	71	152	66.6
Maple Street					
Between First St. and East Ave.	14,205	< 50	62	134	65.7
Mines Road					
Between First St. and Patterson Pass Rd.	40,635	91	190	408	71.5
Between Patterson Pass Rd. and East Ave.	25,115	68	139	296	69.4
Murrieta Boulevard					
Between Portola Ave. and Jack London Blvd.	10,745	< 50	81	169	65.7
Between Jack London Blvd. and Stanley Blvd.	31,225	77	160	342	70.3
Between Stanley Blvd. and Holmes St.	25,475	69	140	299	69.4
North Canyons Parkway					
Between Airway Blvd. and Collier Canyon Rd.	44,215	99	203	432	71.1
Northfront Road					
Between Vasco Rd. and Greenville Rd.	22,740	< 50	85	183	67.8
Olivina Avenue					
Between Hagemann Dr. and Murrieta Blvd.	8,400	< 50	< 50	95	63.4
N. P Street					
Between Portola Ave. and First St.	11,265	< 50	84	175	65.9
Patterson Pass Road					
Between Mines Rd. and Joyce St.	19,490	59	118	251	68.3
Between Joyce St. and Vasco Rd.	18,725	58	115	244	68.1

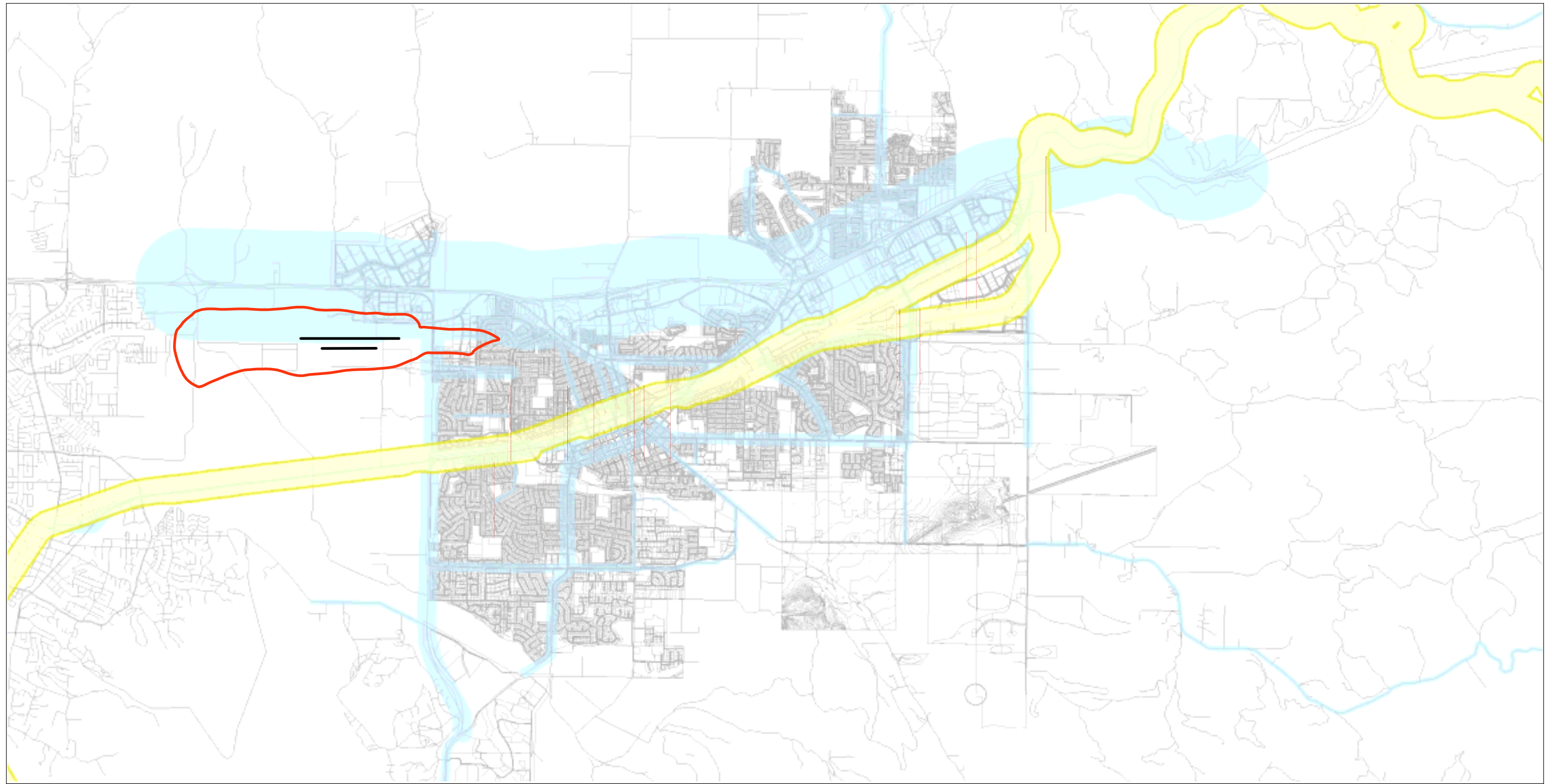
Table IV.H-2 *continued*

Roadway Segment	Average Daily Traffic	Centerline to 70 CNEL ^b (Feet)	Centerline to 65 CNEL ^b (Feet)	Centerline to 60 CNEL ^b (Feet)	CNEL (dBA) 50 Feet from Outermost Lane
Portola Avenue					
Between I-580 and Murrieta Blvd.	39,860	58	124	266	70.2
Between Murrieta Blvd. and N. Livermore Ave.	38,525	88	184	393	71.2
Between N. Livermore Ave. and First St.	21,515	62	126	267	68.7
Railroad Avenue					
Between Stanley Blvd. and N. Livermore Ave.	30,590	76	158	338	70.2
Between N. Livermore Ave. and First St.	33,650	52	111	238	69.5
Robertson Park Road					
Between Arroyo Rd. and Concannon Blvd.	300	< 50	< 50	< 50	49.0
Springtown Boulevard					
Between Bluebell Dr. and I-580	30,325	76	157	336	70.2
Stanley Boulevard					
West of Isabel Ave.	39,495	89	187	400	71.4
Between Isabel Ave. and Murrieta Blvd.	48,335	105	215	458	71.5
Between Murrieta Blvd. and Railroad Ave.	31,370	78	161	343	70.4
Southfront Road					
Between First St. and Vasco Rd.	16,300	< 50	68	147	66.3
Tesla Road					
East of Greenville Rd.	13,310	< 50	60	128	65.4
Vallecitos Road					
South of Isabel Ave.	34,880	53	113	244	69.6
Vasco Road					
North of Dalton Ave.	28,000	< 50	98	211	68.7
Between Dalton Ave. and Scenic Ave.	29,460	75	154	329	70.1
Between Scenic Ave. and I-580	38,510	92	186	394	70.5
Between I-580 and Las Positas Rd.	70,645	132	275	589	73.2
Between Las Positas Rd. and Daphine Dr.	47,755	101	212	454	72.2
Between Daphine Dr. and East Ave.	21,700	63	127	269	68.8
Between East Ave. and Tesla Rd.	12,745	< 50	58	125	65.3
Vineyard Avenue					
West of Isabel Ave.	14,805	< 50	64	138	65.9
Wall Street					
Between Stanley Blvd. and El Caminito	8,725	< 50	< 50	97	63.6
I-580					
Between N. Flynn Rd. and Greenville Rd.	177,223	438	940	2,023	80.7
Between Greenville Rd. to Vasco Rd.	200,491	476	1,021	2,197	81.3
Between Vasco Rd. and First St.	241,766	538	1,156	2,489	82.1
Between First St. and N. Livermore Ave.	226,795	516	1,108	2,385	81.8
Between N. Livermore Ave. and Portola Ave.	250,347	551	1,183	2,547	82.2
Between Portola Ave. and Airway Blvd.	254,569	557	1,197	2,576	82.3
Between Airway Blvd. and El Charro Rd.	307,822	632	1,358	2,923	83.1

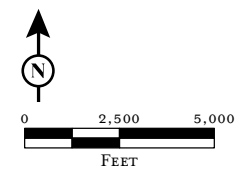
^a This noise contour analysis is based on the average daily traffic projected to occur along individual roadway segments. Projects in the vicinity of a given roadway segment could also be affected by other noise sources (e.g., I-580 and train operations). Project specific noise analysis may be required for any given specific location to meet noise compatibility guidelines.

^b The noise analysis model was programmed to provide noise levels beyond 50 feet of the roadway centerline, because it is assumed that areas within 50 feet of the centerline are usually within the roadway right-of-way for major roadway segments.

Source: LSA Associates, Inc., May 2003.



LSA



Legend

- Airport 60dBA CNEL (2020)
- Preferred Alternative Traffic Noise 60dBA CNEL
- Railroad Train Noise 60dBA CNEL

FIGURE IV.H-1

*Livermore Draft General Plan and
Downtown Specific Plan EIR
2025 Noise Contour Map*

- Greenville Road between Northfront Road and National Drive
- Isabel Avenue between Jack London Boulevard and Vallecitos Road
- Jack London Boulevard between Isabel Avenue and Murrieta Boulevard
- Kitty Hawk Road between East Airway Boulevard and Jack London Boulevard
- Los Pasitas Road between North Livermore Avenue and Greenville Road
- Maple Street between First Street and East Avenue
- Mines Road between Patterson Pass Road and East Avenue
- Northfront Road between Vasco Road and Greenville Road
- Patterson Pass Road between Joyce Street and Vasco Road
- Vasco Road between Las Positas Road and Daphine Drive

Along these road segments, traffic noise as a result of the Draft General Plan would be potentially significant. Implementation of the following policies would minimize traffic noise impacts: N-1.1.P1, N-1.1.P2, N-1.1.P3, N-1.1.P4, N-1.2.P1, N-1.2.P2, N-1.4.P2, N-1.4.P3, N-1.4.P4, and N-1.4.P5. These policies would require the City to consider noise and land use compatibility issues when evaluating development proposals, and to take steps to minimize traffic noise. While these Draft General Plan policies would help to mitigate the effects of traffic noise, they would not prevent the anticipated traffic noise increase of more than 4 dBA along the roadway segments noted above. The increase in traffic noise along these roadway segments is therefore considered a significant, unavoidable impact.

Mitigation Measure NOISE-GP-1: No mitigation measures are available to reduce this impact to a less-than-significant level. (SU)

Impact NOISE-GP-2: The Draft General Plan would provide for an increase in flights at the Livermore Municipal Airport, exposing a larger area of the City, including existing housing, to aircraft noise. (S)

Currently, aircraft overflights contribute little to ambient noise levels in Livermore, and this condition would continue to be the case with implementation of the Draft General Plan. Policy CIR-8.1.P1 allows for an increase in annual aircraft operations at the Airport that shall not exceed 370,000 flights in any given year, a 113,000-flight increase over the 257,000 flights handled by the Airport in 2000.

Increased Airport operations would, however, expand the zone within which noise from aircraft would be noticeable. Currently, residential neighborhoods to the east of the Livermore Municipal Airport are outside the 60 dBA CNEL impact area. As shown in Figure IV.H-1, some of the existing residences east of the Airport would be affected by the 60 dBA CNEL from future Airport operations, a situation considered “Conditionally Acceptable” under the noise standards included in the Draft General Plan. These residences would continue to be outside the 65 dBA CNEL impact area; therefore, no building construction upgrades, such as double-paned windows, would be required. With windows open, however, interior noise levels in these residences could exceed the State’s 45 dBA CNEL standard.

Implementation of the following Draft General Plan policies would minimize the impacts from Airport operations for future noise-sensitive developments in the affected area: N-1.1.P1 through N-1.1.P4, N-1.2.P2, LU-4.4.P1, LU-4.4.P2, and LU-4.4.A3. These policies would require the City to consider noise and land use compatibility issues when evaluating development proposals, including proposals in the Airport vicinity. These policies would not apply, however, to existing residences that are currently outside the projected 60 dBA CNEL noise contour but that would be affected by noise from future Airport operations. Additionally, Draft General Plan policy CIR-8.1.P1 would provide that nighttime flights (between 10:00 p.m. and 6:00 a.m.) would be discouraged to the greatest extent feasible, and that aircraft and Airport operation noise levels must be consistent with the thresholds established in the General Plan Noise Element. These policies would help to mitigate noise effects on existing residences. To reduce this impact to a less-than-significant level the following mitigation measure should be implemented:

Mitigation Measure NOISE-GP-2: The City of Livermore shall develop a program to identify residences subject to excessive Airport noise. The program shall ensure that the State's 45 dBA CNEL/ L_{dn} interior noise standard for residential uses is achieved for these affected residences. One way of implementing this measure would be for the City to contract with a qualified acoustical engineer to conduct annual exterior noise measurements, beginning along the block nearest the eastern edge of the Airport and, over the years, moving eastward, away from the Airport. If/when the exterior noise levels are within one dBA of 60 dBA CNEL on any block, the City should purchase and install of air conditioning units for those single family residences exposed to such noise. The air conditioning units would allow these residences the option of keeping their windows closed during the summer months when it would otherwise be too hot to do so. (LTS)

c. Impacts and Mitigation Measures of the Downtown Specific Plan. This subsection evaluates potential noise impacts associated with the Downtown Specific Plan and identifies mitigation measures to address these impacts, as necessary.

(1) Less-than-Significant Impacts of the Downtown Specific Plan. Less-than-significant noise impacts of the Downtown Specific Plan would include noise from construction activity, stationary sources, and rail operations.

Construction Activity. As with the Draft General Plan, development allowed by the Downtown Specific Plan would lead to construction activity. This activity would be subject to City requirements designed to minimize construction noise impacts. Construction-related noise impacts of the Downtown Specific Plan are therefore considered less-than-significant at this program-level of review.

Stationary Sources. Similar to the Draft General Plan, development allowed by the Downtown Specific Plan may include stationary sources of noise. Development proposals in the Downtown would be subject to project-level review by the City, as described above for the Draft General Plan. The three "catalyst projects" identified by the Downtown Specific Plan would be commercial or mixed-use developments that would not be expected to include major stationary noise sources, although this conclusion would need to be verified when detailed development plans are proposed. It is also important to note that the Draft General Plan includes policy N-1.1.P6 that relaxes applicable exterior noise standards for Downtown multi-family housing, indicating a general

acceptance of slightly higher exterior noise levels (exterior levels up to 75 dBA would be considered normally acceptable for all uses) in the Downtown. However, an interior noise level of 45 dBA must be maintained for residential development, per State law (see Development Standards 7.1 Exterior Noise Levels and 7.2 Interior Noise Levels). Additionally, the Downtown Right to Operations and Noise Easement Requirement would ensure that new residents are informed of the noise environment and the right for Downtown uses to operate. For these reasons, Downtown Specific Plan impacts related to noise from stationary sources are considered less-than-significant.

Rail Operations. Since the Union Pacific railroad tracks extend through the Downtown, this area would be subject to train noise and vibration impacts similar to those described for the Draft General Plan. With implementation of the Downtown Specific Plan, rail operations along the railroad tracks within the Downtown are not anticipated to increase substantially over their current levels or create a significant noise impact. Development proposals in the Downtown would be subject to project-level review by the City, as described above for the Draft General Plan, to evaluate any potential impacts from train noise. The Downtown Specific Plan also includes provisions for buffers between the railroad tracks and adjoining buildings. Implementation of plan policies would reduce noise and vibration impacts to a less-than-significant level.

(2) Potentially Significant Impacts of the Downtown Specific Plan. Potentially significant noise impacts of the Downtown Specific Plan would be limited to the effect of noise from vehicular traffic along major roadway segments within the Downtown.

Implementation of the Downtown Specific Plan, combined with other development anticipated in the Draft General Plan, would increase traffic noise levels along some road segments in the Downtown by over 4 dBA, potentially exposing residences and other land uses to excessive noise. This impact was discussed in Impact NOISE-GP-1 previously.

The Downtown Specific Plan would contribute to increases in traffic noise levels by 1) enabling new development in the Downtown that would generate traffic, and 2) providing for road and intersection modifications designed to redistribute traffic flows and increase traffic capacity on certain Downtown streets (e.g., Fourth Street, Railroad Avenue).

As noted in the discussion of the Draft General Plan above, projected year 2025 traffic levels (including development and road modifications anticipated with implementation of the Draft General Plan and Downtown Specific Plan) would increase traffic noise on various roadway segments. Two of these segments are located in the Downtown: Fourth Street between South Livermore Avenue and Inman Street, and Maple Street between First Street and East Avenue. Commercial uses and single-family housing are currently located along these roadway segments. The Downtown Specific Plan designates some of the properties adjoining these roadway segments for commercial and multi-family residential development.

Development proposals in the Downtown would be subject to project-level review by the City that would include consideration of noise and land use compatibility issues and measures for reducing the effects of traffic noise. Project-level review would not prevent the anticipated traffic noise increase of more than 4 dBA along the two road segments noted above, however. The increase in traffic noise along these road segments is therefore considered a significant, unavoidable impact, as described for the Draft General Plan under Impact NOISE-GP-1 above.

I. BIOLOGICAL RESOURCES

This section evaluates potential impacts relating to biological resources resulting from implementation of the Draft General Plan and the Downtown Specific Plan. Mitigation measures are recommended as appropriate.

1. Setting

The EIR setting information for biological resources is contained in Volume I: Master Environmental Assessment (MEA). Please refer to Chapter 11, Biological Resources, in the MEA for a discussion of vegetation types, habitats, special-status species, significant natural communities, and the regulatory context for biological resources.

2. Guiding Documents

This section identifies the policies contained in the Draft General Plan and the Downtown Specific Plan pertaining to biological resources. The policies and actions identified below have been carefully selected so as to include only those that relate to potential impacts as defined by the criteria of significance set forth in subsection 3a below. A complete list of Draft General Plan policies is contained in Appendix B of this EIR. Note that goals, objectives, policies and actions from the South Livermore UGB Initiative or the North Livermore UGB Initiative are identified in *italics* and are noted as initiative language in the Draft General Plan.

a. Draft General Plan. Key policies and actions concern biological resources are found in the Land Use, Community Character, and Open Space Conservation elements of the Draft General Plan.

Land Use Element

LU-1.1.P1 Except where special conditions warrant, the City shall allow development only on those properties immediately adjacent to established urban areas, in accordance with the North Livermore Urban Growth Boundary Initiative.

LU-3.1.P1 Prior to or concurrent with approval of any development applications, a specific plan shall be prepared and approved for the Greenville BART TOD. The specific plan shall provide detailed guidance for project-related land use, provision and financing of public services and facilities, open space preservation, visual resources, and recreational amenities, and shall include mitigation measures to reduce the impacts of individual projects on existing neighborhoods and environmental resources.

LU-4.1.P1 Impacts to wetland and biological resources shall be calculated on a gross acreage basis and shall include areas of steep slopes, streets, floodways, and parks dedications that could result in losses of wildlife and plant habitat on a parcel.

LU-4.1.P2 The City shall encourage the clustering of development in order to minimize its overall footprint in areas of ecological sensitivity, such as hillsides, alkali springs, creek corridors, and watersheds.

LU-4.2.P1 New development shall be designed to respect and enhance Livermore's existing development and natural environment.

LU-4.2.P2 The use of "green construction" and land development techniques shall be encouraged as a means to reduce the environmental impacts of construction activity.

LU-4.2.P3 Encourage all additions and new development to follow green building practices for design, construction, and operation and to incorporate as many LEED™ prerequisites and credits as feasible.

LU-4.2.A1 Use the Housing Implementation Program, design review process, and specific plans to ensure that development meets community concerns for visual quality and environmental sensitivity.

Community Character

CC-1.1.P12 The City shall preserve and enhance the following natural amenities:

- (a) Ridgelines
- (b) Oak Woodlands and Grasslands
- (c) Grasslands
- (d) Riparian Woodland
- (e) Arroyos and Creeks
- (f) Knolls
- (g) Brushy Peak
- (h) Arroyo Mocho/Cedar Mountain
- (i) Corral Hollow
- (j) Sycamore Grove
- (k) *Hilltops (NLUGBI)*
- (l) *Slopes (NLUGBI)*
- (m) *Viewscapes (NLUGBI)*

Open Space and Conservation Element

OSC-1.1.P1 Priority shall be given to land acquisition efforts that would result in the creation of linkages between existing protected natural resource areas.

OSC-1.1.P2 The City shall support efforts to preserve and maintain Corral Hollow, important as the most northerly range of desert plants and animals, as open space.

OSC-1.1.P3 The City shall support efforts to preserve and maintain Cedar Mountain, important for its restricted stand of Sargent Cypress, var., *Duttoni*, as open space.

OSC-1.1.A1 Require all development to comply with State and federal regulations to preserve and protect the habitats of rare and endangered species.

OSC-1.1.A2 Encourage agricultural interests to maintain or develop areas of natural habitat with wildlife-compatible farm management practices.

OSC-1.2.P1 Habitats of rare or endangered species shall be preserved.

OSC-1.2.P2 Use and development of riparian areas should enhance the appearance of the creekside environment and protect and enhance native vegetation.

OSC-1.2.P3 Require appropriate setbacks adjacent to natural streams to provide adequate buffer areas that ensure the protection of plant and animal communities.

OSC-1.2.P4 Riparian woodlands and freshwater marshes shall be preserved. *Developers shall be required to mitigate possible adverse impacts upon these resource areas, consistent with the North Livermore Urban Growth Initiative (NLUGBI).* Where in-place preservation is found not to be feasible, the City shall require:

- (a) on-site replacement of riparian or wetland areas;
- (b) off-site replacement; or
- (c) restoration of degraded riparian or wetland areas.

OSC-1.2.P5 Grading and excavation in woodland areas shall avoid disturbances to subsurface soil, water or rooting patterns for natural vegetation.

OSC-1.2.P6 The City shall require all development to comply with State and federal regulations to preserve and protect the habitats of rare and endangered species.

OSC-1.2.P7 The City shall require project proponents to identify and map sensitive biological and wetland resources on each development parcel and identify the measures necessary to avoid and/or minimize impacts on sensitive biological and wetland resources prior to approving the development.

OSC-1.2.P8 The City shall require development to avoid take of species listed as threatened, endangered, or candidate under federal and state endangered species acts by implementing measures determined in consultation with the U.S. Fish and Wildlife Service and the California Department of Fish and Game.

OSC-1.2.P9 Development, conversion to cultivated agriculture, or keeping of animals is not permitted if the quantity or biological quality of wetlands would be reduced materially. "Wetlands" are areas permanently or periodically covered by water, where hydrophytic vegetation is present under normal circumstances, or that have soils primarily hydric in nature. (North Livermore Urban Growth Boundary Initiative)

OSC-1.2.P10 No building may be located in a riparian corridor. No development, conversion to cultivated agriculture, or keeping of animals shall be permitted if it would materially reduce the quantity or quality of water in a riparian corridor. Dams to store water for agriculture may be permitted in riparian corridors, but only if water is released in quantities and at times so as not to impair aquatic life or riparian vegetation.

OSC-1.2.P11 No development or conversion to cultivated agriculture shall be permitted by the City which will cause a reduction or impairment contrary to federal or State law of habitat for animals or plants that are listed by the Federal or State governments as endangered or threatened.

OSC-1.3.P1 Require new developments to incorporate native vegetation into their landscape plans, and prohibit the use of invasive non-native species.

OSC-1.3.A1 Restore areas adjacent to existing open space areas with native plant and animal communities.

OSC-1.3.A2 Develop and implement an urban forest preservation ordinance, inclusive of an inventory of ancestral trees, to require the preservation of trees of significant value.

OSC-1.4.P1 The City shall encourage the County of Alameda, East Bay Regional Park District, and the Livermore Area Recreation and Parks District to preserve and protect areas outside the Urban Growth Boundary.

OSC-1.4.P2 The City shall encourage the County of Alameda to undertake a study to: (1) map the precise distribution of the rare and endangered species as to their number and sites; and (2) determine the sensitivity of these species to development, so that effective management programs can be developed.

OSC-1.4.P3 The City shall encourage and cooperate with the County in establishing a program to preserve representative examples of natural and near-natural landscape communities, such as Brushy Peak, Corral Hollow, Cedar Mountain and Sycamore Grove.

OSC-1.4.P4 The City shall encourage the State to continue and expand current fishery practices of stocking streams and reservoirs, including but not limited to Lake Del Valle, San Antonio Reservoir, Shadow Cliffs Park, Arroyo Del Valle and Arroyo Mocho.

OSC-1.4.A1 Work with local, regional, and State natural resource agencies and area non-profits to develop programs to fund preservation of sensitive biological resources, including arroyos, wetlands, and grasslands.

OSC-1.4.A2 Work with other agencies such as Zone 7 and RWQCB to develop an intergovernmental program to reestablish the riparian community along major drainage ways in the Planning Area.

OSC-1.4.A3 The City shall develop a list of priorities regarding acquisition and/or preservation of open space areas to assist with the use of open space and other preservation fees or funds received by the City.

OSC-2.1.P1 Require the implementation of Best Management Practices (BMPs) to minimize erosion, sedimentation, and water quality degradation resulting from the construction of new impervious surfaces.

OSC-2.1.P2 The City shall take all necessary measures to regulate runoff from urban uses to protect the quality of surface and ground-water.

b. Downtown Specific Plan. The Downtown Specific Plan does not contain specific policies relating to biological resources. However, it is the intent of the City that that in those instances where the Downtown Specific Plan does not provide policy guidance, the goals, objectives and policies of the Draft General Plan will apply.

3. Impacts and Mitigation Measures

The following section focuses on the potential adverse impacts of the proposed project. Because there are no areas of significant biological resources in the Downtown area (although there may be some “ancestral trees”), this subsection evaluates potential impacts associated with biological resources for both plans concurrently. Where potentially significant impacts of the proposed project are found, mitigation measures are recommended.

a. Criteria of Significance. Implementation of the Livermore Draft General Plan and Downtown Specific Plan would have significant impacts to biological resources if the project would:

- Result in substantial reduction in numbers of, restriction in range for, or loss of habitat for a population of any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service;
- Have a substantial adverse effect by diminishing the area or quality of any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service;
- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act through direct removal, filling, hydrological interruption, or other means;
- Substantially interfere with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;

- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or State policies protecting biological resources, including the City's ancestral tree ordinance.

b. Impacts and Mitigation Measures. This section evaluates potential impacts to *biological resources* associated with the implementation of the Draft General Plan and Downtown Specific Plan and identifies mitigation measures to address these impacts, as necessary.

(1) Less-than-Significant Impacts. Following is a summary of the less-than-significant impacts that would result from implementation of the Draft General Plan and Downtown Specific Plan.

Sensitive Habitat Areas. Development resulting from implementation of the Draft General Plan and Downtown Specific Plan could adversely effect areas of ecological sensitivity, including hillsides, alkali springs, creek corridors and watersheds. Implementation of policy LU-4.1.P2 would encourage an overall reduction in the size of the development footprint when development occurs in an ecologically sensitive areas. Clustering of the development should have the effect of minimizing the footprint of the development.

It should be noted that subsequent specific development in some areas where clustering may not sufficiently avoid impacts to sensitive resources would be regulated by State or federal agencies. For example, such areas include: the BART Transit Oriented Development (TOD) area and Sensitive Habitat Parcels area where Altamont Creek crosses or borders the parcels and where jurisdictional wetlands may occur; the Adventus parcel bordered by the Arroyo Las Positas; the Arroyo Road parcel bordered by Arroyo Mocho; and West Side subareas W2 and W3 through which Arroyo Las Positas passes.

To identify and reduce site specific impacts, implementation of policy LU-3.1.P1 would require the preparation of a specific plan prior to development of the TOD area. Implementation of Draft General Plan policy LU-4.1.P1 and policies and actions under objectives OSC-1.1 and OSC-1.2 (specifically OSC-1.2.P7, OSC-1.4.A5), would reduce impacts to sensitive habitat areas to a less-than-significant level.

Special Status Species. Development resulting from implementation of the Draft General Plan and Downtown Specific Plan could adversely modify critical habitat for vernal pool fairy shrimp. On September 24, 2002, the U.S. Fish and Wildlife Service published a proposed rule to designate critical habitat for four vernal pool crustaceans and 11 vernal pool plants in California and Southern Oregon¹. Portions of the Draft General Plan area overlap the proposed critical habitat Subunit 19C for the vernal pool fairy shrimp (*Branchinecta lynchi*). In particular, the area designated for the BART TOD change area and the Sensitive Habitat parcels in the northeast corner of the City, fall within the proposed critical habitat area. Development in these areas could result in adverse modifications to critical habitat that could affect the recovery of vernal pool fairy shrimp.

¹ U.S. Fish and Wildlife Service. 2002. Endangered and Threatened Wildlife and Plants; Critical Habitat Designation for Four Vernal Pool Crustaceans and Eleven Vernal Pool Plants in California and Southern Oregon. Federal Register 67(185): 59884-60039.

Potential habitat for listed species occurs within the Planning Area. Specifically, annual grasslands provide potential habitat for San Joaquin kit foxes and annual grasslands with suitable aquatic sites also may provide habitat for listed vernal pool crustaceans or California red-legged frogs. Future development areas as specified in the Draft General Plan would result in loss of habitat for these species and potentially result in mortality, or harassment of these species thereby violating the take provisions of the State and/or federal Endangered Species Acts.

Policies OSC-1.2.P1 and OSC-1.2.P8 specifically address preservation and avoidance of habitat for listed species. In addition, the Draft General Plan also includes a number of policies that require setback from streams (OSC-1.2.P3); avoidance and compensation for impacts to riparian woodlands and freshwater marshes (OSC-1.2.P4); restrictions on converting wetland habitats to agricultural uses (OSC-1.2.P9); restrictions on siting of buildings in riparian corridors or damming creeks (OSC-1.2.P10); and converting habitat for state and/or federally-listed plants or animals to agricultural uses (OSC-1.2.P11).

Undeveloped grasslands or vacant lots adjacent to undeveloped lands may support listed species or be used by these species as they move among natural habitat areas. Areas where mortality or take of listed species are likely include the BART TOD area and Sensitive Habitat Parcels in the northeast corner of the City; the Adventus and Ferreri parcels north of I-580; the West Side area; and the Arroyo Road parcel and Righetti parcels in the southern portion of the City. In particular, development of the BART TOD area could result in conversion of habitat that is adjacent to a preserved open space (Brushy Peak Regional Park) thereby increasing the likelihood of take for animals that may move from the park to lowland areas. Earthmoving, bridge building, fill of wetlands and aquatic habitats, and general construction activities may result in mortality to individuals occupying the grasslands or aquatic habitats present onsite.

To identify and reduce site specific impacts, implementation of policy LU-3.1.P1 would require the preparation of a specific plan prior to development of the TOD area. Implementation of Draft General Plan policies and actions under objectives OSC-1.1 and OSC-1.2 (specifically policies and actions OSC-1.2.P1, P6, P7, and P8, and OSC-1.4.P2) would reduce impacts to special status species and their habitat areas to a less-than-significant level.

Non-Listed Species. Potential habitat for 19 non-listed, special-status species occurs in the Planning Area. These species use a variety of habitat including annual grasslands, riparian corridors, creeks, vernal pools, and stock ponds and other natural man-made aquatic habitat for breeding, foraging, or shelter. A number of species that inhabit grasslands could be adversely affected by development of the BART TOD area, Sensitive Habitat Parcels, Adventus site, Ferreri site, and the West Side area parcels. Of particular concern are impacts to California tiger salamanders and burrowing owls. Both species use underground burrows for nesting and/or shelter, making it difficult to assess presence or absence of these species on a site and to estimate the number of individuals inhabiting a site. Specific survey techniques are available to more completely assess presence and absence of many of these species including burrowing owls and California tiger salamanders, but implementation of such surveys is not required by any policy in the Draft General Plan.

Policies in the Draft General Plan that would have a beneficial effect on non-listed, special-status species include the following preservation of open space areas at Corral Hollow and Cedar Mountain (Policies OSC-1.4.P3, OSC-1.1.P3); requirement to implement creek setbacks (OSC-1.2.P3); and

avoidance of riparian woodlands and freshwater marshes and compensation for impacts to this habitat (OSC-1.2.P4). Implementation of policy LU-3.1.P1 would require a specific plan be prepared prior to development at the TOD to protect biological resources, and policy OSC-1.2.P1 would protect habitat used by non-listed species. Implementation of these policies would reduce potential impacts to non-listed species to a less-than-significant level.

Special Status Plants. Development resulting from implementation of the Draft General Plan and Downtown Specific Plan could result in loss of or indirect impacts on special-status plant populations. Future development activities could cause the loss of special-status plants² or indirect impacts that could degrade the habitat of special-status plant populations within the Draft General Plan area. Potential habitat for 34 special-status plants occurs throughout the Planning Area with at least 22 of these species potentially occurring in grassland habitats. Grasslands represent the dominant plant community in the undeveloped portions of the Planning Area and will be particularly impacted by the future development in the following areas: BART TOD, Adventus property, Sensitive Habitats parcels, Arroyo Road property, Righetti property, and West Side Area. Direct impacts on special-status plants could occur through grading of project sites or indirectly through grading of adjacent areas that could result in erosion and sedimentation or alteration of hydrologic conditions in the vicinity of special-status plants. Implementation of policies LU-3.1.P1, OSC-1.2.P1, OSC-1.2.P6 and P8 afford protection to plants listed as rare or endangered and to habitat containing other special-status plants (i.e., candidates, CNPS Lists 1B, 2).

Wetlands. Future development in the Draft General Plan area may result in loss of waters of the U.S. (including wetlands) or waters of the State. Placement of fill or work within jurisdictional areas are subject to regulation by federal and State agencies including the U.S. Army Corps of Engineers, the Regional Water Quality Control Board, and the California Department of Fish and Game. Development in the BART TOD area, Adventus parcel, and West Side area may affect jurisdictional areas. These development areas may contain, or border on, creeks and associated wetlands and may contain other jurisdictional areas such as vernal pools. Policies in the Draft General Plan address avoidance (OSC-1.2.P3, OSC-1.2.P5, OSC-1.2.P9, OSC-1.2.P10, and OSC-1.2.P11) and compensation (OSC-1.2.P4) for impacts to riparian areas and wetlands. Policy OSC-1.2.P7 acknowledges the separate federal and State processes that should be completed prior to construction within jurisdictional areas.

Active Raptor Nests. Development resulting from implementation of the Draft General Plan could result in loss of active raptor nests. Active raptor nests are protected under the California Fish and Game Code, Section 3503.5. As such, activities that result in the destruction or abandonment of the nest are violations of the State code. A number of raptor species occur in the Livermore Planning Area including common species such as red-tailed hawks as well as special-status species such as Swainson's hawks and burrowing owls. Habitats that support nesting raptors may be large or small. Urban areas as well as natural habitats may provide nesting sites. Active raptor nests should be avoided during the nesting season (approximately February 1 through September 1). Preconstruction surveys of nests should be conducted no more than 30 days prior to the initiation of construction activities to identify and avoid active nests. Implementation of policies OSC-1.2.P6 and P8 would reduce impacts to potential active raptor nests to a less than significant level.

² Special-status species are defined as species listed as threatened, endangered, or candidate species under the state or federal endangered species acts, species listed as rare under the state Fish and Game Code, and species the California Native Plant Society's List 1b or 2.

Ancestral Trees. Development resulting from implementation of the Draft General Plan and Downtown Specific Plan could result in loss of ancestral trees. Future development areas may contain trees that meet the definition of ancestral trees under Title 12, Article II of the City's Municipal Code. Ancestral Trees are defined as those trees "which, by reason of its age, size, location, or species, has special value to the community, and which has been so designated by resolution of the Livermore beautification committee." Future development in any part of the Draft General Plan area may impact "ancestral trees" either currently designated or designated by future actions of the Livermore beautification committee. In addition to having historic and aesthetic significance, large, old trees often provide habitat for a variety of wildlife species that do not use smaller or younger trees. Implementation of Draft General Plan policy OSC-1.3.A4 would reduce impacts to ancestral trees to a less-than-significant level.

Wildlife Movement and Corridors. The implementation of Draft General Plan policies LU-1.1.P1 and OSC-1.1.P1 would ensure that potential adverse impacts to wildlife movement and corridors would be avoided.

Consistency with Regulatory Plans. The policies and land use provisions of the Draft General Plan and Downtown Specific Plan do not conflict with any approved local, regional, or State policies protecting biological resources.

(2) Significant Impacts. No potentially significant impacts related to biological resources were identified as a result of implementation of the proposed project.

J. GEOLOGY, SOILS, AND SEISMICITY

This section evaluates geology, soils, and seismicity conditions within the City of Livermore, including slope instability, and mineral resources. Impacts associated with geology, soils, and seismicity potentially resulting from implementation of the project are analyzed; and mitigation measures are recommended, as appropriate.

1. Setting

The EIR setting information for geology, soils, and seismicity is contained in Volume I: Master Environmental Assessment (MEA). Please refer to Chapter 12, Geology, Soils, and Seismicity, in the MEA for a discussion of topography, geology, soils, mineral resources, seismicity, slope instability, and the regulatory framework, agencies, and plans concerned with geology, soils, and seismicity.

2. Guiding Documents

This section identifies the policies contained in the Draft General Plan and the Downtown Specific Plan pertaining to geology, soils, and seismicity. The policies and actions identified below have been carefully selected so as to include only those that directly relate to potential impacts as defined by the criteria of significance set forth in subsection 3a below. A complete list of Draft General Plan policies is contained in Appendix B of this EIR. Note that goals, objectives, policies and actions from the South Livermore UGB Initiative or the North Livermore UGB Initiative are identified in *italics* and are noted as initiative language in the Draft General Plan.

a. Draft General Plan. The Draft General Plan incorporates geology, soils, and seismicity policies and actions into the following elements, Land Use, Community Character, Public Safety, Open Space and Conservation, and Infrastructure and Public Services. The following policies and actions pertain to geology, soils, and seismicity:

Land Use Element

LU-1.1.P1 Except where special conditions warrant, the City shall allow development only on those properties immediately adjacent to established urban areas, in accordance with the North Livermore Urban Growth Boundary Initiative (NLUGBI).

LU-3.1.P1 Prior to or concurrent with approval of any development applications, a specific plan shall be prepared and approved for the Greenville BART TOD. The specific plan shall provide detailed guidance for project-related land use, provision and financing of public services and facilities, open space preservation, visual resources, and recreational amenities, and shall include mitigation measures to reduce the impacts of individual projects on existing neighborhoods and environmental resources.

Community Character

CC-1.1.P2 The City shall permit no intensive development of the hills. Development including roads, buildings and other structural or land coverage shall be located, sited and designed to fit and be subordinate to the natural landforms. Under no circumstances shall development create uniform, geometrically terraced building sites which are contrary to the natural landforms and which detract, obscure or negatively effect the visual quality of the landforms.

CC-1.1.P3 Areas with slopes 25% or more should be conditioned carefully with respect to grading, cut and fills, runoff, erosion and sedimentation, and maintenance of vegetation. Hillside development regulations should reflect these environmental concerns. (North Livermore Urban Growth Boundary Initiative)

CC-1.1.P4 No building site or greenhouse, in whole or in part, may be located on a pre-development slope of more than 20%. No building may be located on a site that has access over a natural slope of more than 25%. Cultivated agriculture may not be conducted on a slope, prior to topographical alteration, of more than 20%. (North Livermore Urban Growth Boundary Initiative)

Public Safety Element

PS-1.1.P1 Urban development within earthquake fault zones and areas of high landslide susceptibility, shown in Figure 10-3, shall be conditioned upon the preparation of site-specific geotechnical investigations.

PS-1.1.P2 The City shall rely on the most current and comprehensive geologic hazard mapping available to assist in the evaluation of potential seismic hazards associated with proposed new development. Projects proposed in areas identified as being subject to moderate or high geologic hazard shall be required to conduct site-specific geotechnical investigation.

PS-1.1.P3 No structure proposed for human occupancy shall be placed across the trace of any active or potentially active fault within the Planning Area. The Greenville fault and Las Positas fault shall be assumed active, and the Livermore fault shall be assumed potentially active, unless and until proven otherwise.

PS-1.1.P4 The City shall rely on the most current and comprehensive geologic hazard mapping available to assist in evaluation of potential seismic hazards associated with proposed new development. Projects proposed in areas identified as being subject to moderate or high geologic hazard shall be required to conduct site-specific geotechnical investigation.

PS-1.1.P5 Geologic and engineering studies shall be required for all proposed building projects, per State law, and all critical facilities (schools, hospitals, fire and police stations) within the City so that these facilities can be constructed in a manner that mitigates site-specific geotechnical challenges and will minimize the risk to the public from seismic hazards.

PS-1.1.P6 Construction shall be prohibited in areas with severe erosion (slopes over 10 percent), as mapped by the State Natural Resources Conservation Service, unless it can be clearly demonstrated through geotechnical engineering analysis that the project will not contribute to increased erosion, sedimentation or runoff.

PS-1.1.P8 Prohibit development on expansive soils which are subject to a high probability of sliding; developments proposed below areas of expansive soils in foothill areas shall be conditioned to avoid damage from potential slide areas.

PS-1.1.P9 No building site or greenhouse, in whole or in part, may be located on a pre-development slope of more than 20 percent. No building may be located on a site that has access over a natural slope of more than 25 percent. Cultivated agriculture may not be conducted on a slope, prior to topographical alteration, of more than 20 percent (NLUGBI).

PS-1.1.A1 Retain a geologist registered in the State of California to evaluate the geologic reports required under Policies P3 and P4 (above) and advise the City regarding them.

PS-1.1.A2 Adopt appropriate setbacks for development or perform detailed fault shear zone studies to define building setback requirements within earthquake fault zones. The ultimate setback required will be determined as geologic studies are made as a condition of processing development proposals.

PS-1.2.P1 Major utility lines shall be carefully planned where they cross a fault. They shall cross at right angles, or nearly so, be accessible for rapid repair, and be provided with safety features such as automatic shutoff valves, switches and expansion joints. Other equipment shall be provided to ensure minimal adverse impact on adjacent and surrounding areas and to facilitate restoration of service in the event of fault displacement.

PS-1.2.P2 Areas of high shrink-swell potential soils shall incorporate suitable mitigation measures. If development is allowed in areas of high shrink-swell potential, special measures must be undertaken in site grading, foundation design and construction to alleviate potential movements.

PS-1.2.P3 The City shall control site preparation procedures and construction phasing to reduce erosion and exposure of soils to the maximum extent possible.

PS-1.2.A1 Promote programs that identify unreinforced masonry buildings, or other buildings that would be at risk during seismic events, and continue to promote strengthening of these buildings.

PS-1.2.A2 Promote programs that encourage residents to make their homes more seismically resistant and resilient.

Open Space Element

OSC-4.1.P1 When considering land use proposals, the City shall take into account potentially available mineral resources on the property or in the vicinity.

OSC-4.1.P2 Prior to approval of any new or expanded mining operation, the City shall ensure that the operation will not create significant nuisances, hazards, or adverse environmental effects. The City shall require environmentally sound quarry operations by ensuring compliance with all applicable City policies and standards of the City's Municipal Code and noise standards in the Noise Element of the City's General Plan.

OSC-4.1.P3 New or substantially expanded mining operations in the Planning Area must adhere to the following standards:

- a) Demonstrate no significant adverse impacts from the mining operation on adjoining areas and uses, including, but not limited to, noise, dust, and vibration;
- b) Demonstrate no substantial increase in hazards to neighboring uses, water quality, air quality, agricultural resources, and biological resources;
- c) Demonstrate that the proposed plan complies with existing applicable County and State waste management plans and standards;
- d) Implement a landscaped buffer zone between quarrying operations and noise-sensitive adjacent uses to ensure consistency with standards established in the City's Noise Element of the General Plan.
- e) Use berms, barriers, sound walls, and other similar measures to assure that noise from quarrying does not cause exceedance of ambient noise level standards relevant to noise-sensitive adjacent uses.

OSC-4.1.P4 Allow continued operation and minor expansion of existing mining operations within the Planning Area only where impacts to environmental resources and surrounding residential uses can be mitigated to less-than-significant levels.

OSC-4.1.P5 Ensure reclamation of mining areas for reuse consistent with the land use designation for the area in accordance with the California Surface Mining and Reclamation Act (SMARA) when mining use is phased out.

Infrastructure and Public Services Element

INF-1.2.P7 Major utility lines such as water supply mains, fire protection mains, shall be carefully planned where they cross a seismic fault. They shall cross at right angles, or nearly so, be accessible for rapid repair, and be provided with safety features such as automatic shutoff valves, switches and expansion joints. Other equipment shall be provided to ensure minimal adverse impact on adjacent and surrounding areas and to facilitate restoration of service in the event of fault displacement.

INF-2.1.P7 Major sewer collection and transmission systems shall be carefully planned where they cross a seismic fault. They shall cross at right angles, or nearly so, be accessible for rapid repair, and be provided with safety features such as automatic shutoff valves, switches and expansion joints. Other equipment shall be provided to ensure minimal adverse impact on adjacent and surrounding areas and to facilitate restoration of service in the event of fault displacement.

b. Downtown Specific Plan. The Downtown Specific Plan does not contain any specific policies relating to geology, soils, and seismicity. However, it is the intent of the City that that in those instances where the Downtown Specific Plan does not provide policy guidance, the goals, objectives and policies of the Draft General Plan will apply.

3. Impacts and Mitigation Measures

This section focuses on an assessment of potential adverse impacts related to *geologic and seismic hazards and mineral resources* of the proposed project. It establishes the thresholds of significance for impacts, and then evaluates the two elements of the proposed project: the Draft General Plan and the Downtown Specific Plan. Where potentially significant impacts of the proposed project are identified, mitigation measures are recommended. Less than significant impacts are also identified.

a. Criteria of Significance. A potentially significant environmental impact related to geologic and seismic hazards would result if implementation of any of the policies within the Livermore Draft General Plan and Downtown Specific Plan would:

- Expose significant numbers of people or structures to rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area, or based on other substantial evidence of a known fault;
- Expose people or structures to geologic hazards that could result in loss, injury, or death related to strong seismic ground shaking or seismic-related ground failure, including liquefaction or landslides;
- Result in development on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse;
- Result in development on expansive soil, as defined in the Uniform Building Code, creating substantial risks to life or property;
- Result in the loss of availability of a known mineral resource that would be of value to the region and residents of the state or a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan;
- Result in the development of incompatible uses in and within one-half mile of a designated mineral resource area.

b. Impacts and Mitigation Measures. Geology and seismicity are City-wide issues and no site-specific concerns regarding these issues were identified in the Downtown area. Therefore, both plans are evaluated together under the following subsection.

(1) Less-than-Significant Impacts. The following is a discussion of less-than-significant impacts associated with geology and seismic issues.

Seismic Hazards. Implementation of the Livermore Draft General Plan and Downtown Specific Plan may draw more people to an area of relatively high seismic hazard, potentially resulting in additional injuries and/or fatalities during a strong earthquake. The Public Safety Element includes goals, objectives, policies, and actions designed to reduce the risk to the community from seismic hazards, including policies PS-1.1.P1 through P9, actions PS-1.1.A1 and A2, policies PS-1.2.P1 through P3 and actions PS-1.2.A1 and A2. Implementation of these policies and actions would reduce this potential impact to a less-than-significant level.

Fault Rupture Hazards. The Alquist-Priolo Earthquake Fault Zoning Act (existing law) adequately restricts new development from building structures across active faults. An Alquist-Priolo Earthquake Fault Zone associated with the Greenville Fault runs through the Greenville BART Transit Oriented Development (TOD) change area. General Plan policy LU-3.1.P1 would require the preparation of a specific plan prior to any development in the TOD which would allow for the identification and mitigation of potential hazards related to fault rupture. No additional City policies are required to ensure that this law is implemented.

Slope Instability Hazards. Implementation of the Livermore Draft General Plan and Downtown Specific Plan may draw more people to an area of relatively high slope instability hazard, potentially resulting in additional injuries and/or property damage during a landslide event. The Public Safety Element includes goals, objectives, policies, and actions designed to reduce the risk to the community from slope instability hazards, including policies PS-1.1.P2 through P4, PS-1.1.P6 through P9. Implementation of these policies would reduce this potential impact to a less-than-significant level.

Expansive Soils. The Draft General Plan includes Policy PS-1.2.P2 that would adequately address the potential hazards associated with development in areas of expansive soils (soils with a high shrink-swell potential).

Mineral Resources. The City and its Planning Area contains substantial aggregate resources. The Draft General Plan includes policies OSC-4.1.P1 through P5 that would adequately protect these aggregate resources from urban encroachment and development.

(2) Significant Impacts. No significant impacts associated with geologic resources or seismic hazards related to implementation of the Draft General Plan or Downtown Specific Plan were identified.

K. HYDROLOGY AND WATER QUALITY

This section evaluates hydrology and water quality conditions within the City of Livermore, including drainage, flooding, and groundwater. Impacts to hydrology and water quality potentially resulting from implementation of the project are analyzed, and mitigation measures are recommended, as appropriate.

1. Setting

The EIR setting information for hydrology and water quality is contained in Volume I: Master Environmental Assessment (MEA). Please refer to Chapter 13, Hydrology and Water Quality in the MEA for a discussion of the various aspects of hydrology (climate, drainages, surface water bodies, flooding hazards, groundwater supply, extraction and recharge); water quality; and the regulatory framework, agencies, and plans concerned with hydrology and water quality.

2. Guiding Documents

This section identifies the policies contained in the Draft General Plan and the Downtown Specific Plan pertaining to hydrology and water quality. The policies and actions identified below have been carefully selected so as to include only those that relate directly to potential impacts as defined by the criteria of significance set forth in subsection 3a below. A complete list of Draft General Plan policies is contained in Appendix B of this EIR. Note that goals, objectives, policies and actions from the South Livermore UGB Initiative or the North Livermore UGB Initiative are identified in *italics* and are noted as initiative language in the Draft General Plan.

a. Draft General Plan. The Draft General Plan incorporates hydrology, water quality, and flooding hazard policies and actions into the Land Use, Community Character, Open Space and Conservation, and Public Safety elements. The following policies and actions pertain to hydrology and water quality:

Land Use Element

LU-1.1.P1 Except where special conditions warrant, the City shall allow development only on those properties immediately adjacent to established urban areas, in accordance with the North Livermore Urban Growth Boundary Initiative.

LU-3.1.P1 Prior to or concurrent with approval of any development applications, a specific plan shall be prepared and approved for the Greenville BART TOD. The specific plan shall provide detailed guidance for project-related land use, provision and financing of public services and facilities, open space preservation, visual resources, and recreational amenities, and shall include mitigation measures to reduce the impacts of individual projects on existing neighborhoods and environmental resources.

LU-4.1.P1 Impacts to wetland and biological resources shall be calculated on a gross acreage basis and shall include areas of steep slopes, streets, floodways, and parks dedications that could result in losses of wildlife and plant habitat on a parcel.

LU-4.1.P2 The City shall encourage the clustering of development in order to minimize its overall footprint in areas of ecological sensitivity, such as hillsides, alkali springs, creek corridors, and watersheds.

LU-4.2.P1 New development shall be designed to respect and enhance Livermore's existing development and natural environment.

Community Character

CC-1.1.P12 The City shall preserve and enhance the following natural amenities:

- (a) Ridgelines
- (b) Oak Woodlands and Grasslands
- (c) Grasslands
- (d) Riparian Woodland
- (e) Arroyos and Creeks
- (f) Knolls
- (g) Brushy Peak
- (h) Arroyo Mocho/Cedar Mountain
- (i) Corral Hollow
- (j) Sycamore Grove
- (k) *Hilltops (NLUGBI)*
- (l) *Slopes (NLUGBI)*
- (m) *Viewscapes (NLUGBI)*

CC-4.15.P1 Alteration of streambeds or bodies of water and adjacent vegetation should be permitted only with approval of the local jurisdiction, as a means of preserving the natural scenic quality of stream courses, bodies of water, vegetation, and wildlife in the Valley.

CC-4.15.P2 Development adjacent to streams, canals, reservoirs, and other bodies of water should be in a manner that will preserve the natural scenic qualities of the area, or when scenic qualities are minimal shall be designed and treated so as to result in naturalistic forms.

Open Space and Conservation Element

OSC-1.2.P2 Use and development of riparian areas should enhance the appearance of the creekside environment and protect and enhance native vegetation.

OSC-1.2.P3 Require appropriate setbacks adjacent to natural streams to provide adequate buffer areas that ensure the protection of plant and animal communities.

OSC-1.2.P4 Riparian woodlands and freshwater marshes shall be preserved. *Developers shall be required to mitigate possible adverse impacts upon these resource areas, consistent with the North Livermore Urban Growth Initiative (NLUGBI).* Where in-place preservation is found not to be feasible, the City shall require:

- (a) on-site replacement of riparian or wetland areas;
- (b) off-site replacement; or
- (c) restoration of degraded riparian or wetland areas.

OSC-1.2.P7 The City shall require project proponents to identify and map sensitive biological and wetland resources on each development parcel and identify the measures necessary to avoid and/or minimize impacts on sensitive biological and wetland resources prior to approving the development.

OSC-1.2.P9 *Development, conversion to cultivated agriculture, or keeping of animals is not permitted if the quantity or biological quality of wetlands would be reduced materially. "Wetlands" are areas permanently or periodically covered by water, where hydrophytic vegetation is present under normal circumstances, or that have soils primarily hydric in nature. (North Livermore Urban Growth Boundary Initiative)*

OSC-1.2.P10 *No building may be located in a riparian corridor. No development, conversion to cultivated agriculture, or keeping of animals shall be permitted if it would materially reduce the quantity or quality of water in a riparian corridor. Dams to store water for agriculture may be permitted in riparian corridors, but only if water is released in quantities and at times so as not to impair aquatic life or riparian vegetation.*

OSC-1.2.P11 *No development or conversion to cultivated agriculture shall be permitted by the City which will cause a reduction or impairment contrary to federal or State law of habitat for animals or plants that are listed by the Federal or State governments as endangered or threatened.*

OSC-1.3.A1 Restore areas adjacent to existing open space areas with native plant and animal communities.

OSC-1.4.A1 Work with local, regional, and State natural resource agencies and area non-profits to develop programs to fund preservation of sensitive biological resources, including arroyos, wetlands, and grasslands.

OSC-1.4.A2 Work with other agencies such as Zone 7 and RWQCB to develop an intergovernmental program to reestablish the riparian community along major drainage ways in the Planning Area.

OSC-2.1.P1 Require the implementation of Best Management Practices (BMPs) to minimize erosion, sedimentation, and water quality degradation resulting from the construction of new impervious surfaces.

OSC-2.1.P2 The City shall take all necessary measures to regulate runoff from urban uses to protect the quality of surface and ground-water.

OSC-2.1.P3 The City shall work with Zone 7 to develop a recharge area map to guide future development. Developments proposed in areas identified as “valuable” to the recharge area shall mitigate adverse impacts to the greatest extent possible.

OSC-2.1.P4 The City shall continue to work with Zone 7 to address on-going aquifer salt-loading in the basin.

OSC-2.1.P5 The City shall contribute its fair share to the cost of implementing the plan developed by Zone 7 for salt management.

OSC-2.1.A1 Implement a program for integrated pest management (IPM) for City-managed landscaping areas that minimizes the use of pesticides and herbicides, and strives toward an organic pest-management approach. Provide incentives for the adoption of IPM practices on private land.

Public Safety Element

PS-2.1.P1 Modification to the floodway will not be permitted in order to accommodate new adjacent development but will be permitted to restore creek capacity, stabilize creek banks, and restore habitat or water quality. However, modification of the land within the 100-year flood zone, but located outside of the floodway, will be permitted to protect the health and safety of existing development.

PS-2.1.P2 When financially and technically feasible, arroyos and creeks shall be preserved in their natural state, and shall not be channelized or otherwise altered. Floodways should remain undeveloped and be allowed to function as natural flood protection features where flood waters are temporarily stored and conveyed during intense storms.

PS-2.1.P3 The City shall require new development to prepare drainage studies to assess storm runoff impacts on the local and regional storm drain and flood control system, and to develop recommended detention and drainage facilities to ensure that increased risks of flooding do not result from new development.

PS-2.1.P4 Only uses which have low flood damage potential and do not threaten other lands during times of flooding shall be permitted in the 100-year flood zone.

PS-2.1.P5 *Subject to the North Livermore Urban Growth Boundary Initiative, the City shall permit development in a flood-prone area when it is demonstrated that such development will not (NLUGBI):*

- (a) Interfere with the existing waterflow capacity of the floodway or substantially increase the erosion, siltation or chemical nutrients.
- (b) Contribute to the deterioration of any watercourse or the quality of water in any body of water.
- (c) Require storage of material, construction of any substantial grading or placement of fill.

PS-2.1.P6 Development shall only be allowed on lands within the 100-year flood zone, if it will not:

- Create danger to life and property due to increased flood heights or velocities caused by excavation, fill, roads and intended use.
- Create difficult emergency vehicle access in times of flood.
- Create a safety hazard due to the expected heights, velocity, duration, rate of rise and sediment transport of the flood waters expected at the site.
- Create excessive costs in providing governmental services during and after flood conditions, including maintenance and repair of public utilities and facilities.

PS-2.1.P7 Both public and private service facilities and utilities in existing 100-year flood zones shall be floodproofed to a point at or above the base flood elevation.

PS-2.1.P8 The City shall prevent the construction of flood barriers within the 100-year flood zone which will divert flood waters or increase flooding in other areas.

PS-2.1.P9 Coordinate with Zone 7 to construct creek improvements to Zone 7 standards to protect public health and safety and to de-silt existing creeks while maintaining creeks in their natural state whenever possible.

PS-2.2.P1 The City shall, in cooperation with the County of Alameda, prepare and maintain a disaster relief plan that addresses potential flood inundation in the areas below the Del Valle Reservoir and the Patterson Dam, as a result of dam failure (shown on Figure 10-6 and 10-7).

PS-2.2.A1 Review the evacuation plan in the City's comprehensive emergency management plans, as periodically amended, for the inundation areas regularly to ensure it is accurate and up-to-date.

PS-2.2.A2 Work with the California Department of Water Resources to ensure that adequate funding is being allocated for inspections of Del Valle and Patterson Dams, and that inspections and required maintenance are being carried out.

b. Downtown Specific Plan. The Downtown Specific Plan contains the following policy in Chapter 10, Utilities and Infrastructure relating to hydrology and water quality:

Storm Drainage Policy 1: The storm drainage system should be able to prevent uncontrolled storm water runoff in all areas of Downtown, under both existing and future conditions.

3. Impacts and Mitigation Measures

This section focuses on an assessment of potential adverse impacts relating to *hydrology, water quality and flooding* of the proposed project. It establishes the thresholds of significance for impacts,

and then evaluates the two elements of the proposed project: the Draft General Plan and the Downtown Specific Plan. Where potentially significant impacts of the proposed project are identified, mitigation measures are recommended. Less than significant impacts are also identified.

a. Criteria of Significance. Implementation of the project would have significant hydrologic and/or water quality impacts if the project would:

- Violate any water quality standards or waste discharge standards set by the Regional Water Quality Control Board or otherwise substantially degrade surface or groundwater quality;
- Substantially deplete groundwater supplies or interfere substantially with groundwater recharge at the Livermore-Amador Valley Groundwater Basin such that the local groundwater table would be lowered;
- Substantially reduce the amount or quality of water otherwise available for public water supplies;
- Substantially alter an existing drainage such that substantial erosion, siltation, or flooding would occur in the City or on property in adjacent municipalities;
- Create or substantially contribute to runoff water which would exceed the capacity of existing or planned storm water drainage systems or create an increase in calculated peak flood discharges;
- Substantially alter a natural water course;
- Place housing or other structures within a 100-year flood hazard zone, as defined by FEMA;
- Disturb, alter, or remove a seep or spring that could adversely affect stream flow, slope stability, or riparian habitat; or
- Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam.

b. Impacts and Mitigation Measures. Hydrology, water quality and flooding are citywide issues and no site-specific concerns were identified regarding these issues in the Downtown area. Therefore, both plans are evaluated together under the following subsection.

(1) Less-than-Significant Impacts. Following is a discussion of less-than-significant impacts related to hydrology, water quality and flooding.

Point Source and Nonpoint Source Discharges. Implementation of the Livermore Draft General Plan would result in new construction and operation of facilities that could contribute to both point and nonpoint sources of runoff to area creeks and arroyos, potentially increasing pollutant loading.

Runoff water quality is regulated by the federal National Pollution Discharge Elimination System (NPDES) Nonpoint Source Program (established through the Clean Water Act); the NPDES program objective is to control and reduce pollutants to water bodies from nonpoint discharges. The program is administered by the California Regional Water Quality Control boards. The project site would be under the jurisdiction of the San Francisco Regional Water Quality Control Board (RWQCB) and the Alameda Countywide Clean Water Program (ACCWP). The City of Livermore is a participant in the ACCWP. The ACCWP is a consortium of local government agencies under a common NPDES Stormwater Discharge Permit that was formed to assist agencies in permit compliance and to promote

storm water pollution prevention. The RWQCB maintains permit compliance with the NPDES Storm Water Discharge Permit and promotes storm water pollution prevention within that context. City compliance with the NPDES Permit is mandated by state and federal laws. In addition, new construction projects and ongoing industrial activities are required to comply with the storm water General Permits, as described below. Implementation of policies OSC-2.1.P1 and P2 would also assist in reducing impacts to water quality to a less-than-significant level.

New Construction. Projects disturbing more than one acre of land¹ during construction are required to file a Notice of Intent (NOI) with the RWQCB to be covered under the Statewide General Permit for Discharges of Storm Water Runoff Associated with Construction Activity. A developer must propose control measures that are consistent with the State General Permit. A Storm Water Pollution Prevention Plan (SWPPP) must be developed and implemented for each site covered by the general permit. A SWPPP must include Best Management Practices (BMPs) designed to reduce potential impacts to surface water quality through the construction and life of the project.

Industrial Activity. Certain types of industrial facilities also need to file an NOI to comply with the statewide General Permit for Storm Water Discharges Associated with Industrial Activities. The General Permit presents the requirements for compliance of certain industries with the NPDES program. A wide range of industries are covered under the General Permit, including mining operations, lumber and wood products facilities, petroleum refining, metal industries, and facilities used in the storage, treatment, recycling, and reclamation of municipal or domestic sewage. Compliance with existing regulations and the continued participation of the City of Livermore with the ACCWP reduces this potentially significant impact to a less-than-significant level.

Flooding Hazards. Flooding resulting from extreme storm events and/or catastrophic dam failure could affect the new and existing development within the General Plan area. However, policies contained in the Livermore Draft General Plan and existing programs adequately mitigate potential flooding impacts. Specifically, policies PS-2.1.P1 through P9 and actions PS-2.2.A5 and A6 require new development to be completed in a way that will minimize flood-related hazards and will not create new hazards for existing development. Therefore, potential impacts associated with flooding are considered less than significant.

Alteration of Waterways. Implementation of the Livermore Draft General Plan would result in new construction near existing creeks and arroyos. Substantial alteration of the direction of a watercourse or disruption of seeps or springs that support watercourses could be considered a significant impact. However, policies contained in the Livermore Draft General Plan (including LU-4.1.P2, OSC-1.2.P3, OCS-1.2.P4, OCS-1.2.P10, OCS-1.3.A3, OCS-2.2.P1) adequately mitigate potential impacts to creeks and arroyos from new development by restricting encroachments into riparian

¹ The State Water Resources Control Board, Water Quality Order 99-08-DWQ, National Pollutant Discharge Elimination System (NPDES), General Permit for Storm Water Discharges Associated with Construction Activity (General Permit) states that:

The regulations provide that discharges of storm water to waters of the United States from construction projects that encompass five (5) or more acres of soil disturbance are effectively prohibited unless the discharge is in compliance with an NPDES Permit. Regulations (Phase II Rule) that became final on December 8, 1999 expand the existing NPDES program to address storm water discharges from construction sites that disturb land equal to or greater than one (1) acre and less than five (5) acres (small construction activity). The regulations require that small construction activity, other than those regulated under an individual or Regional Water Quality Control Board General Permit, must be permitted no later than March 10, 2003.

corridors. Therefore, potential impacts associated with alteration of waterways are considered less than significant.

Groundwater. Implementation of the Livermore Draft General Plan could affect the quantity and quality of water available in the Livermore Valley Groundwater Basin. Implementation of the Livermore Draft General Plan would result in creation of new impervious surfaces that may reduce the net infiltration of precipitation and subsequent recharge of the aquifer within the Planning Area, potentially impacting the total volume of groundwater stored in the Livermore Valley Groundwater Basin. Draft General Plan objective OSC-2.1 and supporting policies would expand efforts to ensure that development does not harm the water quality of Livermore's surface or groundwater and would preserve recharge areas and high permeability soils. Under the policy, developers would be required to mitigate possible adverse impacts upon such areas and no development would be permitted that would have substantial adverse impact. Policy OSC-2.1.P3 would require the City to work with Zone 7 to develop a recharge areas map to guide future development. Developments proposed in areas designated as valuable recharge areas would be required to mitigate possible adverse impacts.

Growth and new development that require additional import of water to the basin, may also increase the importation of dissolved salts to the basin, exacerbating the existing aquifer salt-loading problem. Policies OSC-1.4.A6, OSC-2.1.P1, P4, and P5 which require the City to work with Zone 7 to stream management and address salt-loading would mitigate impacts associated with this issue to a less-than-significant level.

(2) Significant Impacts. No significant impacts related to implementation of the proposed project were identified.

L. HAZARDS

This section evaluates public health and safety conditions within the City of Livermore including issues related to hazardous materials. Impacts to public health and safety potentially resulting from implementation of the Draft General Plan and Downtown Specific Plan are analyzed, and mitigation measures are recommended, as appropriate.

1. Setting

The EIR setting information for public health and safety is contained in Volume I: Master Environmental Assessment (MEA). Please refer to Chapter 14, Hazardous Materials in the MEA for a discussion of the regulatory agency framework associated with hazardous materials, a description of the responsibilities of the City under the Certified Unified Program Agency program, and an identification of sites within the City which are or were formerly affected by releases of hazardous materials.

2. Guiding Documents

This section identifies policies contained in the Draft General Plan and the Downtown Specific Plan pertaining to public health and safety. The policies and actions identified below have been carefully selected so as to include only those that could directly lead to potential impacts as defined by the criteria of significance set forth in subsection 3a below. A complete list of Draft General Plan policies is contained in Appendix B of this EIR. Note that goals, objectives, policies and actions from the South Livermore UGB Initiative or the North Livermore UGB Initiative are identified in *italics* and are noted as initiative language in the Draft General Plan.

a. Draft General Plan. The Public Safety Element of the Draft General Plan contains Goal PS-4, Protect the community from the harmful effects of hazardous materials, and Objective PS-4.1, Minimize Livermore residents' exposure to the harmful effects of hazardous materials and wastes. To achieve that goal and objective, the Public Safety Element contains the following policies and actions:

Safety Element

PS-4.1.P1 Residual repositories shall be prohibited within the City limits.

PS-4.1.P2 Areas with a land use designation of High Intensity Industrial are appropriate for hazardous waste management facilities if other siting criteria can be met and potential environmental impacts are mitigated as part of conditional approval.

PS-4.1.P3 The City shall promote the safe transport of hazardous materials through Livermore through implementation of the following measures:

- Maintain formally-designated hazardous material carrier routes to direct hazardous materials away from populated and other sensitive areas;
- Prohibit the parking of vehicles transporting hazardous materials on City streets;
- Require that new pipelines and other channels carrying hazardous materials avoid residential areas and other immobile populations to the greatest extent possible.

PS-4.1.P4 Require emergency response plans for all large generators of hazardous waste to be submitted as part of use applications.

PS-4.1.P5 When reviewing applications for new development in areas historically used for commercial or industrial uses, the City shall require environmental investigation as necessary to ensure that soils, groundwater, and buildings affected by hazardous material releases from prior land uses, and lead and asbestos potentially present in building materials, would not have the potential to affect the environment or the health and safety of future property owners or users.

PS-4.1.P6 Continue to encourage the reduction of solid and hazardous wastes generated within the City, in accordance with County-wide plans.

PS-4.1.P7 The City shall ensure that new development and redevelopment shall protect the public health and safety through environmental investigations, as required by State and Alameda County regulations, relating to potential hazardous material releases from prior uses and lead and asbestos present in building materials.

PS-4.1.P8 The City shall encourage the reuse and/or recycling of debris following a disaster, in accordance with all applicable regulations.

PS-4.1.A1 Continue to implement processing procedures and local siting criteria in order to implement relevant and applicable provisions consistent with the hazardous materials and waste management plans for Alameda County.

PS-4.1.A2 Ensure convenient access for Livermore citizens for the disposal of household hazardous wastes.

PS-6.1.P1 The City shall complete regularly scheduled reviews and updates of its emergency management plans.

PS-6.1.A1 Conduct periodic mock exercises using emergency response systems to test the effectiveness of City procedures included in the emergency management plans.

b. Downtown Specific Plan. No policies contained in the Downtown Specific Plan pertain directly to public health and safety related to hazardous materials. However, it is the City's intent that in those instances where the Downtown Specific Plan does not provide policy guidance, the goals, objectives and policies of the Draft General Plan will apply.

3. Impacts and Mitigation Measures

The following section focuses on the potential adverse impacts associated with *hazardous materials* of the proposed project. It begins by establishing the thresholds of significance for impacts, and then evaluates the two elements of the proposed project: the Draft General Plan and the Downtown Specific Plan. Where potentially significant impacts of the proposed project are found, mitigation measures are recommended.

a. Criteria of Significance. Implementation of the Livermore Draft General Plan and Downtown Specific Plan would have a significant effect on public health and safety if it would:

- Create a significant hazard to the public or the environment as a result of routine transport, use, production, upset, or disposal of hazardous materials;
- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;

- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;
- Bring people into direct contact with hazardous materials on a listed hazardous materials site compiled pursuant to Government Code section 65962.5; or
- Impair the implementation or interfere with an emergency response or evacuation plan.

b. Impacts and Mitigation Measures. Hazardous materials are a citywide issue, and therefore, both plans are evaluated together under the following subsection.

(1) Less-than-Significant Impacts. The following is a discussion of less-than-significant impacts. The land use and policy changes proposed in the Draft General Plan and Downtown Specific Plan are not the sort of proposals that would significantly increase risks associated with hazardous materials. New residential uses are generally not being proposed or intensified in areas of known existing risks (e.g., the Lawrence Livermore National Laboratories).

Impacts from Routine Transport, Use, Production, Upset, or Disposal, of Hazardous Materials. Policies PS-4.1.P3 require that businesses using and transporting hazardous materials implement transportation safety measures, emergency response plans, and employee training. These policies will not prevent all potential hazardous material releases, but would serve to minimize both the frequency and magnitude of hazardous material releases. In combination with existing hazardous materials regulations, these policies would reduce the potential impacts from routine hazardous material use to a less-than-significant level.

Impacts from Contamination at Listed Hazardous Materials Sites. Reported releases of hazardous materials may potentially occur in commercial and industrial areas of the City, resulting in listing on regulatory lists compiled pursuant to Government Code section 65962.5. Policy PS-4.1.P5, requiring environmental investigation on sites historically used for commercial or industrial uses would reduce impacts from listed hazardous material sites to a less than significant level.

Impacts from Building Demolition and Renovation. Demolition and renovation of buildings constructed prior to 1990 could expose construction workers and the general public to lead and asbestos in building materials. The Draft General Plan encourages the redevelopment of several areas of the City, which will result in the renovation and demolition of existing buildings. If asbestos-containing materials and/or lead-based paint were present in buildings planned for demolition or renovation, construction workers and nearby residents and workers could be exposed to asbestos fibers and lead-based paint dust. Prior to 1978, lead compounds were commonly used in interior and exterior paints. Prior to the 1980s, building materials often contained asbestos fibers, which were used to provide strength and fire resistance to the materials. Demolition or renovation of structures constructed prior to these dates has the potential to release lead particles and/or asbestos fibers to the air, where they may be inhaled by construction workers and the general public.

Lead is a suspected human carcinogen, a known teratogen (i.e., causes birth defects), and a reproductive toxin. Federal and State regulations govern the renovation and demolition of structures where lead or material containing lead are present. Regulations pertaining to demolition of structures with lead-based paint are promulgated by federal and State agencies.

Asbestos is a known human carcinogen. Federal, State, and local requirements also govern the removal of asbestos or suspected asbestos-containing materials, including the renovation and demolition of structures where asbestos is present. These requirements are promulgated by federal and State agencies and the Bay Area Air Quality Management District (BAAQMD).

Draft General Plan policies PS-4.1.P5 and P7 would reduce impacts associated with lead and asbestos to a less than significant level.

Impacts to Emergency Response and Evacuation Plans. No policies adversely affecting emergency response and evacuation plans were identified in the Draft General Plan. A goal in the Draft General Plan related to public health and safety is PS-6, prepare Livermore for emergencies. policy PS-6.1.P1 and action PS-6.1.A1 would serve to improve the City's emergency response and evacuation plans by performing regular updates and tests of the City's emergency response plans. The increase in population and resulting traffic congestion related to implementation of the Draft General Plan policies could cause emergency response delays. However, implementation of policies and actions INF-6.1.P3 and INF-6.3.P2 would ensure that impacts to emergency response systems and evacuation programs would be less-than-significant.

(2) Potentially Significant Impacts. No potentially significant impacts related to hazardous materials were identified with implementation of the proposed project.

M. VISUAL RESOURCES

This section evaluates the effects of the Draft General Plan and Downtown Specific Plan on visual resources. Potential impacts on visual resources that could result from implementation of the proposed project are identified, and mitigation measures are recommended, as appropriate.

1. Setting

The EIR setting information for visual resources is contained in Volume I: Master Environmental Assessment (MEA). Please refer to Chapter 15, Visual Resources, of the MEA for a description of existing visual resources within and around Livermore.

2. Guiding Documents

This subsection identifies the policies contained in the Draft General Plan and Downtown Specific Plan that specifically relate to visual resources in and around Livermore. The policies and actions identified below have been carefully selected so as to include only those that could directly lead to potential impacts as defined by the criteria of significance set forth in subsection 3a below. A complete list of Draft General Plan policies is contained in Appendix B of this EIR. Note that goals, objectives, policies and actions from the South Livermore UGB Initiative or the North Livermore UGB Initiative are identified in *italics* and are noted as initiative language in the Draft General Plan.

a. Draft General Plan. Most policies pertaining to visual resources are found in the Land Use and Community Character elements of the Draft General Plan. Following are the policies in the Draft General Plan that are directly relevant to visual resources.

Land Use Element

LU-1.4.P7 Highway commercial development adjacent to I-580 shall be limited to areas in close proximity to freeway interchanges.

LU-1.4.P8 The City shall prohibit strip commercial development, whether retail, office, or service commercial, to avoid the following problems:

- (a) traffic congestion resulting from inadequately controlled areas;
- (b) high public costs of widening and improving major streets in order to accommodate traffic movement;
- (c) difficulty in containment of such areas;
- (d) poor aesthetic character where site planning, architectural style, landscaping, and signing are inadequate;
and
- (e) the spread of blight into adjacent neighborhoods.

LU-2.1.P4 The quality and design of residential facilities shall also be an important component of the City's population growth policies. It shall be the continuing responsibility of the City to monitor these factors to assure compliance with the goals and policies of the Plan.

LU-3.1.P1 Prior to or concurrent with approval of any development applications, a specific plan shall be prepared and approved for the Greenville BART TOD. The specific plan shall provide detailed guidance for project-related land use, provision and financing of public services and facilities, open space preservation, visual resources, and recreational amenities, and shall include mitigation measures to reduce the impacts of individual projects on existing neighborhoods and environmental resources.

LU-4.1.P2 The City shall encourage the clustering of development in order to minimize its overall footprint in areas of ecological sensitivity, such as hillsides, alkali springs, creek corridors, and watersheds.

LU-5.1.P1 An Urban Growth Boundary is completed for Livermore. This boundary is the existing South Livermore Urban Growth Boundary (as adopted by the South Livermore Urban Growth Boundary Initiative, approved in March 2000) beginning at Greenville Road, west to its junction at Interstate Highway 580 with the Livermore City Boundary, along the City boundary generally to the east, except where the boundary is south of I-580 the Urban Growth Boundary shall be I-580, to Assessor's Designated Parcel 902-8-5-5, north along the western boundary of that parcel and Designated Parcel 902-8-1 to the northwest corner of Parcel 902-8-1, east along the northern boundary of Parcel 902-8-1 to the Livermore City Boundary, north and generally east along that boundary to Assessor's Designated Parcel 5500-1-10, east along the northern boundary of that parcel and south along the eastern boundary of that parcel to Altamont Pass Road, southwest on that road to Greenville Road, south on Greenville Road to the Livermore City Boundary, generally south along that boundary to Greenville Road, and south to the South Livermore Urban Growth Boundary. The Livermore City Boundary means the City boundary on June 30, 2002.

LU-5.2.P4 Only the following uses, and their normal and appropriate accessory uses and structures, (as well as uses preemptively authorized by Federal and State law) may be permitted in North Livermore, provided that they comply with all the provisions of this Plan:

- (1) One single family residence per parcel, additional dwelling units to the extent that clustering is permitted on a single parcel under Objective LU 5.3, secondary units required by State law, and farm labor housing necessary for bona fide farm workers employed full-time on the parcel or on a farm or ranch of which the parcel is a part (which in no case may be used as housing for non-farm workers);*
- (2) agriculture, including horticulture and grazing of ruminants, but not including large or medium size commercial feed lots and pig farms;*
- (3) packaging, processing, storage or sale of agricultural produce or of plants, a substantial portion of which were grown in the Livermore area, but not canneries and freezing facilities;*
- (4) rearing, custodianship, training, rental or care of animals, other than ruminants which are not subject to this subsection but are agriculture covered by LU 5.2, P4(2), provided that the use does not cause appreciable environmental harm;*
- (5) additional commercial uses, limited to the following:
 - (i) outdoor recreation and pastimes predominantly for active participants, not spectators; this category of permitted uses does not include, among other things, amusement or theme parks, stadia, and motorized vehicle tracks, courses or off-road facilities;*
 - (ii) nature observation, study or enjoyment;*
 - (iii) home occupations and offices, subordinate to residential uses and conducted primarily by residents of a parcel, that will have no deleterious effects on the environment or visual qualities or materially increase traffic in the local area;*
 - (iv) rental of rooms to lodgers, including with board, not exceeding two units in a residence;*
 - (v) uses in historic structures, incidental to preserving the structures and their historic qualities and setting, that will have no deleterious effects on the environment or visual qualities;*
 - (vi) physical and mental convalescence and rehabilitation, chemical dependency treatment, and hospices;*
 - (vii) veterinary offices or facilities, and repair shops primarily for agriculture;*
 - (viii) cemeteries, not to exceed twenty acres, provided they are designed to minimize off-site visual impacts from monuments or other structures;*
 - (ix) accommodations for short-term visitor occupancy and for provision of food and drink (including low-intensity campgrounds and picnic facilities, not to exceed seven acres, but not including recreational vehicle parks), that accord with a rural, agricultural environment;**
- (6) institutional and other non-profit uses that primarily serve North Livermore residents, facilities for meetings and retreats, or to the extent that like uses by profit-making entities would be permitted under LU 5.2 P4;*

(7) *City and other government facilities and infrastructure, and public utilities, that are limited to meeting the needs created by permitted uses in North Livermore, except if the City Council reasonably finds more extensive public need that cannot be met outside North Livermore; however, this exception shall not apply to waste disposal or treatment, commercial electrical power generation, or new airports. Publicly provided outdoor recreation and nature observation and enjoyment facilities and ancillary accommodations are permitted whenever like private uses would be allowed.*

LU-6.1.P1 New or reconfigured parcels, including those resulting from lot line adjustments, must be created or drawn to limit, as much as possible, visibility of development from public roads, parks and other public places. Parcels may not be created that have no building site other than a ridgeline or hilltop or that would cause a building to project into the view of any ridgeline or hilltop from public places, unless there is no other possible configuration.

LU-6.1.P2 Structures may not be located on ridgelines or hilltops, or where they will project into the view from public places of a ridgeline or hilltop, unless there is no less obtrusive site on the parcel or a contiguous parcel in common ownership. To the extent practicable, including by deep setbacks from parcel boundaries, structures shall be located on that part of a parcel that minimizes visual impact from public roads and parks.

LU-6.1.P3 Development shall be subordinate to and blend harmoniously with the natural and open space qualities of the area where located, so as not to impair those qualities and to be as unobtrusive as possible. In all cases, appropriate landscaping, screening, preservation of vegetation, and building materials, covering, and paint shall be required by the City to reduce as much as practicable the visibility of development. To the maximum extent possible, all exterior lighting must be designed, placed, and shielded to confine rays to the parcel where the lighting is located. Signs shall be no more numerous, larger, or noticeable than is strictly necessary to provide essential information to visitors and shall be compatible with a rural agricultural environment.

LU-6.1.P4 The height of buildings may not exceed thirty (30) feet, except if the City Council finds reasonably that a greater height is necessary for agricultural buildings.

LU-6.1.P5 The City shall conduct a careful review of uses and of the amount, location, development envelope, floor area, visibility and topographical alteration of all development to ensure consistency with and implementation of the provisions and objectives of the ordinance.

LU-7.1.P1 Consistent with the other provisions of Objective LU 6.1, alteration of topography by grading, excavating, filling or any development activity shall be minimized. Where feasible, access roads shall be located, including by consolidation, where they are least visible from public places.

LU-13.1.P1 Encourage appropriate design, landscaping and signage to establish Greenville Road, between I-580 and East Avenue, Isabel Avenue between I-580 and Vallecitos Road, and roadways between I-680 and Vallecitos Road, via Downtown Pleasanton and Vineyard Avenue, as important "wine region corridors" as development occurs. Retain existing land use designations and policies.

LU-15.1.P2 Maintain and enhance the visual quality of the South Livermore Valley by limiting inappropriate uses in viticultural areas and encouraging good design through establishment of appropriate design guidelines.

LU-18.1.P4 Extend urban services only to areas within the UGB, except that the City may provide:

- (i) sewage treatment and disposal services to the Veterans Administration Hospital for hospital uses;*
- (ii) urban services for residences on parcels outside of the South Livermore UGB which parcels were existing as of October 27, 1997, provided the property receiving such services shall record a binding*

agreement between the property owner and the City disallowing further division of the property and any provision of urban services to non-residential uses upon the property;

- (iii) *urban services for commercial uses on parcels outside of the South Livermore UGB which parcels were existing as of October 27, 1997, subject to the following:*
- (a) *the subject property is designated under the South Livermore Valley Area Plan for agricultural uses, with associated allowable commercial uses;*
 - (b) *the service(s) will be utilized for allowable commercial uses consistent with the provisions of the South Livermore Valley Area Plan only;*
 - (c) *the subject property is located adjacent to the Livermore municipal boundaries as of the date of the adoption of the SLVSP and, is located adjacent to the Urban Growth Boundary;*
 - (d) *if required by City or LAFCO policy, the property will annex to the City;*
 - (e) *the service(s) can be provided to the subject property without any potential growth inducing impacts associated with potential provision of urban services to areas not otherwise allowed to receive such services under the South Livermore Valley Specific Plan or South Livermore Valley Area Plan;*
 - (f) *before receiving such service(s), the property owner will record a conservation easement over the subject property in a form acceptable to the City which restricts use of the subject property to agricultural and open space uses, except as to a delineated commercial use area within which allowable commercial uses and intensity of such uses shall be delineated; and*
- (iv) *for sewer service in unincorporated areas, the connections (residential and commercial) shall allow no more wastewater flow than the equivalent of ten residential units as required by the LAVWMA Joint Powers Agreement. This requirement shall apply cumulatively to all contiguous uses within the unincorporated geographic area. Larger scale sewer service to unincorporated areas requires the unanimous approval of the LAVWMA Board of Directors. If areas are annexed, this restriction will not apply.*

Community Character Element

Preservation of Natural Setting:

CC-1.1.P1 The City shall allow no structural development in hillside areas involving skylines, ridgelines, or silhouettes.

CC-1.1.P2 The City shall permit no intensive development of the hills. Development including roads, buildings and other structural or land coverage shall be located, sited and designed to fit and be subordinate to the natural landforms. Under no circumstances shall development create uniform, geometrically terraced building sites which are contrary to the natural landforms and which detract, obscure or negatively effect the visual quality of the landforms.

CC-1.1.P8 Open space shall be used to protect and enhance local community character and identity, and to guide the physical shape and direction of urban growth to preserve the rural characteristics of the area.

CC-1.1.P9 New development shall be designed to preserve views from existing neighborhoods to the greatest extent feasible.

CC-1.1.P10 Open space shall be used as a buffer between incompatible land uses within urban or essentially undeveloped areas.

CC-1.1.P11 The City shall permit no development on grassland in upland areas (knolls, hillsides, and ridgelines that rise above the valley floor) unless such development will be screened effectively from existing or proposed public viewing areas or scenic corridors. (North Livermore Urban Growth Boundary Initiative)

CC-1.1.P12 The City shall preserve and enhance the following natural amenities:

- (a) Ridgelines
- (b) Oak Woodlands and Grasslands
- (c) Grasslands
- (d) Riparian Woodland
- (e) Arroyos and Creeks
- (f) Knolls
- (g) Brushy Peak
- (h) Arroyo Mocho/Cedar Mountain
- (i) Corral Hollow
- (j) Sycamore Grove
- (k) *Hilltops (NLUGBI)*
- (l) *Slopes (NLUGBI)*
- (m) *Viewscapes (NLUGBI)*

CC-1.1.P13 The City shall preserve and enhance the following manmade amenities:

- (a) Vineyards
- (b) Other Agriculture
- (c) Lake Del Valle
- (d) Scenic Highways, Roads, and Corridors
- (e) Buildings of Historic or Architectural Significance or Interest
- (f) Community Entrance Points

CC-1.2.P1 No structure or appurtenance shall exceed the height of the tree canopy in woodland areas.

CC-1.2.P2 Development in woodland, grassland, or grassland/woodland areas shall employ colors and materials which are in harmony with, rather than contrast with, the vegetation cover of the site.

CC-1.3.P1 The importance of views of the nighttime sky unimpaired by inappropriate intensities of light and glare shall be acknowledged as a significant scenic resource in Livermore.

Standards of Urban Design:

CC-2.1.P1 All new development and redevelopment shall be subject to design review.

CC-2.1.P2 High-quality design shall be provided in the areas of community design, site design, building design, and landscape design to ensure that compatibility exists between new and existing development.

CC-2.1.P3 The architectural design and site layout of new development and redevelopment should consider the context and character created by existing land uses.

CC-2.1.P4 Design requirements and amenities shall be encouraged in new development and redevelopment, including, but not limited to:

- (a) Interconnected street layout;
- (b) Clustering of buildings;
- (c) Landscaping on each lot;
- (d) Visual buffers;
- (e) Facilitating pedestrian activity; and
- (f) Distinctiveness in architectural design.

CC-2.1.P6 New residential, commercial, and mixed-use neighborhoods shall promote comfortable, safe, and human-scaled design, pedestrian-oriented design features, and connections to pedestrian, bikeway and site amenities shall be incorporated into these new neighborhoods.

CC-2.1.P7 In new residential developments, the use of traditional site design and architectural elements such as a grid street layout, narrower streets, street trees, detached sidewalks, traditional house designs, reduced setbacks, and garages to the rear or sides of properties, shall be encouraged where found consistent with the neighborhood character.

CC-2.1.P8 Buildings with large, blank exterior walls lacking architectural details shall be prohibited.

CC-2.1.P9 Within existing single-family neighborhoods, homes of modest size, built in proportion to their lots, shall be encouraged. Construction of single-family homes that are out of scale with surrounding homes, or which leave yard areas that are significantly smaller than other yards in the neighborhood, should be avoided.

CC-2.1.P10 Multi-family structures and non-residential uses located adjacent to single-family properties shall incorporate adequate screening into the project design to soften the visual impacts of new, more intense development.

CC-2.1.P11 The establishment of gated communities shall be prohibited, excepting senior residential complexes.

CC-2.1.P12 Off-street parking areas shall be screened, preferably by natural vegetation in conjunction with earth berms.

CC-2.1.P13 Existing land uses or those of public necessity, which are visually offensive, shall be screened from view from highways or roadways, or inconspicuously located if within a scenic corridor.

CC-2.2.P1 On-premise signs shall be the minimum size, height, number and type necessary for identification. Their design, materials, color, texture and/or location shall relate to the type of activity to which they pertain and be compatible with the architectural character of the building it is associated with and the visual character of the surrounding area.

CC-2.2.P2 The City shall not permit off-premises outdoor advertising, except for approved freestanding freeway signs and approved non-commercial, general services, informational or directional panel signs, i.e. signs used for advance notice to motorists or to identify destination points, e.g. civic center, library, historic sites, the wine country, parks, etc.

CC-2.2.P3 The City shall continue to implement freeway sign regulations that limit the number of joint freeway signs per interchange, as well as restricting their use to highway-dependent services. Regulations shall include off-site advertising for qualified participants. Approval of signs shall be subject to the appropriate City permits. The location of each sign shall be determined by the optimum visibility from the freeway travel ways having the least impact on the scenic quality of the I-580 corridor.

CC-2.3.P1 Existing overhead utilities shall be placed underground through a phased program of conversion.

CC-2.3.P2 Utility distribution lines shall be placed underground in new developments and upon redevelopment.

CC-2.3.P3 The City shall adopt public improvement standards to implement improvements of high quality public facilities. Excellence in the appearance of public facilities shall be of utmost importance and consideration. New development and redevelopment shall be designed with complimentary public and private amenities. Streetlights, benches, accessory structures, and public and private spaces shall be designed in a complimentary fashion. Landscaping shall be an important and significant design component of development. Areas visible from public streets shall be landscaped as part of the initial development. The City's design guidelines and standards shall establish the objectives, techniques, and programs to implement the location, amount, and type of landscaping material appropriate to these objectives. Additionally, the Downtown Specific Plan's design guidelines shall provide direction on how to address these issues for new development or redevelopment within the Downtown area, as defined in the Specific Plan.

CC-2.4.P1 To protect visual quality at entrances along the freeway, highway commercial development, if allowed, shall be limited to the immediate area of the interchange.

CC-2.4.P2 The design review process shall be used to require new development at the major entrances to the City to provide enhanced site plans, landscaping, and architectural design. Uses should be aesthetically pleasing, providing a high quality design that will benefit its location as a gateway to the City.

Scenic Routes:

CC-4.1.P1 Development shall not be allowed to obscure, detract from, or negatively affect the quality of the views from designated scenic routes.

CC-4.1.P2 The City shall maintain in open space that portion of the hills which is seen from the freeway and which is within the I-580 Scenic Corridor as shown in Figure 4-1. Any development within the I-580 Scenic Corridor is subject to the policies set forth under Goal CC-4 and the conditions set forth in *Section C, I-580 Scenic Corridor Implementation*.

CC-4.1.P3 The City shall permit no development to wholly obstruct or significantly detract from views of any scenic area as viewed from a scenic route.

CC-4.6.P1 Landscaping should be designed and maintained in scenic route corridors to provide added visual interest, to frame scenic views, and to screen unsightly views.

CC-4.7.P1 New overhead transmission towers and lines should not be located within scenic routes.

CC-4.7.P2 New, relocated, or existing utility distribution lines should be placed underground.

CC-4.7.P3 If underground placement is not feasible, utility distribution lines should be located so as to be inconspicuous from the scenic route, on poles of an improved design.

CC-4.7.P4 When more than one utility line is in an area, the lines should be combined on adjacent rights-of-way and common poles.

CC-4.8.P1 Site planning, architectural, and landscape architectural design review shall be required so that development will be attractive from the highway and roads, and a harmonious relationship will exist among the various elements of proposed and existing developments and the visual qualities of the scenic route. Careful

consideration shall be given to natural land contours and to appearances which will enhance scenic qualities from the scenic routes.

CC-4.8.P2 Originality in landscape and construction design should be encouraged.

CC-4.8.P3 Landscape and construction design should be in keeping with the Cityscape and natural skyline and reflect the density, movement, and activities of the population.

CC-4.8.P4 In all zoning districts where the allowable height limit exceeds 35 feet, each proposed structure over 35 feet, except utility poles and lines, should be reviewed to ensure that such structure will not conflict with any view from any scenic route.

CC-4.8.P5 Utilize view angles established in *Section C (I-580 Scenic Corridor Implementation)* to prohibit structures from extending above the applicable view surface established by the view angle.

CC-4.9.P1 Alteration of natural or artificial land contours should not be permitted without a grading permit as a means of preserving and enhancing the natural topography and vegetation in developable areas.

CC-4.9.P2 Mass grading should not be permitted in the I-580 Scenic Corridor.

CC-4.9.P3 A grading permit shall be granted in accordance with the guidelines stated in policy CC-1.1 P2.

CC-4.10.P1 As a means of preserving natural "ridge skylines," no major ridgeline shall be altered to the extent that an artificial ridgeline results. Minor grading below the skylines, ridgelines, or silhouettes may be authorized to accommodate development or activities otherwise consistent with these policies.

CC-4.10.P3 The I-580 Scenic Corridor is defined as the area which is within 3,500 feet on each side of the centerline of I-580, and visible from the I-580 roadway. Development in the I-580 Scenic Corridor must preserve, to the largest degree feasible, the view of the ridgelines as seen from the I-580 Scenic Corridor roadway. To that end, no development, structures or man-made objects except for berms or planting erected for landscaping purposes may obscure any portion of the ridgeline as seen from the I-580 Scenic Corridor roadway, except as provided in *Section C, -580 Scenic Corridor Implementation*.

CC-4.12.P1 In both urban and rural areas, normally permitted uses of land should be allowed in scenic routes, except that panoramic views and vistas should be preserved and enhanced through:

- (1) Supplementing zoning regulations with special height, area, and side yard regulations.
- (2) Providing architectural and site design review.
- (3) Prohibiting and removing billboards, signs not relevant to the main use of the property, obtrusive signs, automobile wrecking and junk yards, and similar unsightly development or use of land.

CC-4.12.P2 Design and location of all signs should be regulated to prevent conglomerations of unsightly signs along roadsides.

CC-4.14.P1 Except for agricultural crops, no vegetation should be removed without permission of the local jurisdiction, as a means of preserving scenic quality.

CC-4.15.P1 Alteration of streambeds or bodies of water and adjacent vegetation should be permitted only with approval of the local jurisdiction, as a means of preserving the natural scenic quality of stream courses, bodies of water, vegetation, and wildlife in the Valley.

CC-4.15.P2 Development adjacent to streams, canals, reservoirs, and other bodies of water should be in a manner that will preserve the natural scenic qualities of the area, or when scenic qualities are minimal shall be designed and treated so as to result in naturalistic forms.

CC-4.16.P1 Views from scenic routes will comprise essentially all of the remainder of the Valley beyond the limits of the I-580 Scenic Corridor. The I-580 Scenic Corridor is intended to establish a framework for the observation of the views beyond; therefore, in all areas in the Valley extending beyond the scenic routes, scenic qualities should be preserved through retaining the general character of natural slopes and natural formations, and through preservation and, where desirable, enhancement of water areas, water courses, vegetation and wildlife habitats.

CC-4.16.P2 Development of lands adjacent to scenic routes should not obstruct views of scenic areas, and development should be visually compatible with the natural scenic qualities.

b. Downtown Specific Plan. The Development Standards and Design Guidelines Standards contained in the Downtown Specific Plan relate to protection of visual resources. The Development Standards and Design Guidelines regulate building height, setbacks, massing, and overall design, in addition to the use of signage and lighting in Downtown Livermore. These regulations and guidelines would indirectly affect visual resources by regulating landscaping, setbacks, window treatments, building materials, floor area ratio, and the overall aesthetic character of Downtown. The Design Guidelines, which are “descriptive principles and recommendations for architectural and landscape character to be implemented by developers and designers in new development and renovation projects,” seek to “enable each project to positively contribute to shaping the urban fabric of Downtown, and to be identifiable as a piece of Downtown Livermore.” Because virtually all of the Development Standards and Design Guidelines contained in the Downtown Specific Plan affect visual resources and the aesthetic character of Downtown, they are not reproduced below; please refer to the Downtown Specific Plan.

3. Impacts and Mitigation Measures

This subsection analyzes impacts related to visual resources that could result from implementation of the Draft General Plan and Downtown Specific Plan. The subsection begins with the criteria of significance, which establish the thresholds for determining whether an impact is significant. Presented next are the impacts associated with the proposed project, and recommended mitigation measures, as appropriate.

a. Criteria of Significance. Implementation of the proposed project would have a significant effect on visual resources if it would:

- Result in visual conditions that would conflict with applicable policies and regulations governing aesthetics and community character;
- Have a substantial adverse effect on a scenic vista, or would substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings;
- Substantially degrade the existing visual character of the City or specific neighborhoods;
- Result in the disruption or blocking of existing views or public opportunities to view scenic resources; or
- Create substantial light or glare which would adversely affect day or nighttime views.

b. Impacts and Mitigation Measures of the Draft General Plan. The following discussion describes impacts on visual quality associated with implementation of the Draft General Plan. Mitigation measures are recommended as appropriate.

(1) Less-Than-Significant Impacts of the Draft General Plan. The following discussion describes less-than-significant impacts on visual resources that could result from implementation of the Draft General Plan.

Conflict with Policies. As described in Section IV.A, Land Use, of this EIR, land within the Livermore Urban Growth Boundary (UGB) that is presently under the jurisdiction of Alameda County would be annexed to the City prior to development. Therefore, development that would take place as part of Draft General Plan implementation would not be under the jurisdiction of the County and County policies would not apply. Draft General Plan policies LU-7.1.P1, LU-15.1.P1, and LU-15.1.P2, restrict development in viticultural areas and require development within or around open space areas to be aesthetically consistent with the surrounding landscape. These Draft General Plan policies are consistent with the County's South Livermore Valley Area Plan, which seeks to maintain and enhance the rural visual qualities around Livermore's south side.

Scenic Vistas and Views. The scenic quality of Livermore is characterized by extensive views to hills and ridgelines that surround the City. These views are especially notable along the city's edges, where views of major topographical features are unimpeded by built structures. In these areas, views are enhanced by wide expanses of rolling rangeland and cultivated agricultural land. Views are also notable from I-580, which is a State-designated Scenic Route. Draft General Plan policies LU-6.1.P2, CC-1.1.P1, CC-1.1.P11, CC-1.1.P12, and CC-4.10.P1 limit development on ridgelines and hilltops, and prohibit the major alteration of ridgelines. In addition, policy CC-1.2.P1 prohibits construction of buildings that exceed the height of the tree canopy in woodland areas. Thus, development occurring under the Draft General Plan would be forced to comply with these view-protective standards and would not significantly affect the visual quality of ridges, hillsides, and wooded areas within the Planning Area.

In addition, Draft General Plan policies would protect viewsheds along scenic routes in Livermore. The following policies would ensure that development that takes place within scenic routes and corridors preserves the integrity of views from these roadways: CC-4.1.P1, CC-4.1.P2, CC-4.1.P3, CC-4.6.P1, CC-4.7.P1, CC-4.7.P2, CC-4.7.P3, CC-4.7.P4, CC-4.8.P1, CC-4.8.P2, CC-4.8.P3, CC-4.8.P4, CC-4.8.P5, CC-4.9.P1, CC-4.9.P2, CC-4.9.P3, CC-4.10.P1, CC-4.10.P3, CC-4.12.P1, CC-4.12.P2, CC-4.14.P1, CC-4.15.P1, CC-4.15.P2, CC-4.16.P1, and CC-4.16.P2. These policies would impose a wide range of protective measures on areas around scenic routes and corridors, including prohibition of overhead transmission lines and mass grading, and provision for design review for proposed projects within scenic routes and corridors. Therefore, development occurring under the Draft General Plan would not result in a substantial adverse impact on views from scenic routes and corridors, or on the visual character of hillsides and ridgelines.

Scenic Resources. Key scenic resources within Livermore include arroyos, historic structures, orderly suburban streets, and views to surrounding hills and ridgelines (discussed above). Draft General Plan policy CC-4.15.P2 requires development adjacent to streams and other bodies of water to preserve the natural scenic qualities of the surrounding landscape. The policies contained in

Section III, Cultural Resources, of the Community Character Element of the Draft General Plan promote the development of a City-wide historic preservation program and encourage the preservation of historic structures by public and private entities. (See further discussion in Section IV.F, Cultural Resources, of this EIR.) New projects that could affect historic structures would be required to undergo environmental review, pursuant to CEQA. At the time of such environmental review, potential project-specific adverse impacts on historic structures would be identified and mitigation measures would be recommended. In addition, development that would occur as part of Draft General Plan implementation would not substantially change the layouts of existing residential neighborhoods that contribute to the visual quality of developed portions of Livermore. Draft General Plan policies CC-2.1.P2, CC-2.1.P7, and CC-2.1.P9 specify that development within existing neighborhoods shall protect the character of established neighborhoods. Therefore, implementation of the Draft General Plan would not adversely affect scenic resources within the City.

Visual Character. Change areas proposed as part of the Draft General Plan generally consist of infill parcels, vacant lots, and other underutilized areas within or immediately adjacent to existing developed areas in Livermore. Many of these areas are overgrown with weeds, are the targets of illegal dumping of garbage, or otherwise have low aesthetic value. The intensification of uses on these sites, as proposed by the Draft General Plan, would have a generally beneficial aesthetic effect by making the areas more visually appealing and cohesive. In addition, several policies in the Draft General Plan seek to encourage development that benefits the visual character of Livermore. As noted above, policies CC-2.1.P2, CC-2.1.P7, and CC-2.1.P9 would ensure that new residential development protects the visual character of existing residential neighborhoods. Policy CC-4.8.P3 encourages development to be consistent with the Cityscape and natural skyline. Policy CC-1.2.P2 mandates that development in natural areas be aesthetically compatible with existing vegetation. The following policies restrict the use and design and signs to ways that would enhance the visual quality of Livermore's roadsides and commercial areas: CC-2.2.P1, CC-2.2.P2, CC-2.2.P3, CC-4.12.P1, CC-4.12.P2.

The area to the west of Laughlin Road, in the vicinity of the proposed Greenville BART TOD, is characterized by rolling farmland and expansive views of hillsides to the south, east, and north. Implementation of the Draft General Plan, which proposes a large parking area, high density mixed use, and urban high residential designations in this area, could obstruct views of hillsides and change the visual character of the area. Draft General Plan policy LU-3.1.P1 would require the preparation of a Specific Plan for the Greenville BART TOD that would include mitigation measures to reduce the impacts of individual projects on several environmental resources, including visual character. The Greenville BART TOD is also located within I-580 Scenic Corridor Subarea 3 (Section C, I-580 Scenic Corridor Implementation, Part 4). This section provides building height restrictions, via view angles, in order to preserve the views of the hills to the north and east. Therefore, implementation of the Draft General Plan would not substantially degrade the existing visual character of the City or individual neighborhoods within Livermore.

Light and Glare. The Draft General Plan does not include any individual projects that would create substantial amounts of glare. Policy CC-1.3.P1 states that nighttime views should be considered a significant scenic resource, which, by extension, bestows added protection on the nighttime sky and prohibits the installation of high-glare surfaces. Therefore, implementation of the Draft General Plan would not result in the creation of substantial light or glare that would adversely affect day or nighttime views. It is possible that buildings proposed as part of Draft General Plan

implementation could include glass that would cause glare. Such projects would be subject to individual environmental review, as required by CEQA, and would be evaluated for consistency with the Draft General Plan policies noted above.

(2) **Significant Impacts of the Draft General Plan.** Implementation of the Draft Specific Plan would not result in any significant impacts to visual resources.

c. **Impacts and Mitigation Measures of the Downtown Specific Plan.** The following discussion describes visual impacts associated with implementation of the Downtown Specific Plan. Mitigation measures are recommended, as appropriate.

(1) **Less-than-Significant Impacts of the Downtown Specific Plan.** Following is a summary of the less-than-significant impacts on visual resources that could result from implementation of the Downtown Specific Plan.

Conflict With Policies. The Overall Downtown Redevelopment Goal in the *Redevelopment Strategy and Urban Design Plan* (adopted in 1984) is to “Improve the business, visual, and cultural vitality of the Downtown to make it an urban center of distinction and character, and reestablish this historic focus of the City of Livermore’s community life.” The Downtown Specific Plan, which also seeks to improve the visual quality of Downtown through development standards and design guidelines, historic preservation, and streetscape improvements, is consistent with and would supersede the *Redevelopment Strategy and Urban Design Plan*.

Scenic Vistas and Views. Hillside views are available along Downtown Livermore streets, where a lack of structures allows for views of outlying areas. Views to outlying areas are restricted in many parts of Downtown due to the presence of buildings, which are generally higher and denser than in other parts of the City. Although roadways in and around Downtown would be modified through implementation of the Downtown Specific Plan (e.g., by reducing or increasing roadway capacity, adding traffic signals, and adding turn lanes), no major roadways would be eliminated. Views to hillsides along north/south and east/west roadways would be altered, but not eliminated, through implementation of the Downtown Specific Plan. In addition, pedestrian improvements proposed by the Specific Plan, including new sidewalk seating areas, pocket plazas, and outdoor eating areas, would increase opportunities for enjoying existing views.

Maximum building height in the Downtown Core would be four stories, and maximum building height in adjacent areas would be three stories. Although these maximum building heights would represent an increase over the height of existing buildings (which are generally one and two stories), this Downtown Specific Plan policy would not result in a substantial adverse change in existing views. The development of taller buildings in Downtown would not affect most view corridors in Downtown Livermore, which are located along roadways or pedestrian sidewalks. Therefore, implementation of the Downtown Specific Plan would not result in a substantial adverse impact on scenic views or vistas.

Scenic Resources. Scenic resources in Downtown Livermore include tree-lined residential streetscapes and many individual historic buildings, which include a wide range of architectural styles. Chapter 6, Design Guidelines of the Downtown Specific Plan, recommends that new and renovated buildings contribute to the “sense of place” in Livermore through the use of historic design

elements and traditional forms, colors, and materials. For instance, the Downtown Specific Plan recommends that buildings in the Downtown Core include elements such as classical proportions and facades, classical detailing and ornament, recessed and vertically-oriented windows, and flat roofs to reference existing historic buildings in the neighborhood.

In addition, rehabilitation of Downtown historic structures would be guided by the Secretary of the Interior's Standards for Rehabilitation, portions of which are included in the Downtown Specific Plan. These standards state: "The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces, and spatial relationships that characterize a property will be avoided." Subsequent specific projects involving historic buildings would undergo environmental review pursuant to CEQA. As part of the environmental review process, potential impacts on historic buildings would be evaluated and mitigation measures would be recommended. Projects would be required to comply with the Downtown Specific Plan *Design Guidelines for Historic Structures*. (See further discussion in Section IV.F, Cultural Resources, of this EIR.) Therefore, implementation of the Downtown Specific Plan would not adversely affect scenic resources, including Livermore streetscapes and historic buildings.

Visual Character. While the presence of many historic buildings enhances the visual character of Downtown Livermore, underutilized lots, large parking areas, and vacant parcels diminish the character of the area. Implementation of the Downtown Specific Plan, which provides for the development of vacant and underutilized sites, implementation of streetscape improvements, and the use of design guidelines to direct new construction and rehabilitation of existing buildings, would improve the visual character of Downtown by providing a more cohesive pattern of development and by enhancing aesthetic quality at the street and building levels. In addition, implementation of the Secretary of the Interior's Standards for Rehabilitation, as outlined above, would preserve the visual integrity of historic portions of Downtown.

The three catalyst projects proposed as part of the Downtown Specific Plan (the development of the Livermore Valley Center, a mixed-use project on the former Lucky's site, and an entertainment facility at First and L Streets) would be subject to individual environmental review pursuant to CEQA. At the time of such environmental review, these projects would be evaluated for their effects on visual resources, including visual character. At the present time, without available plans and architectural elevations, the project-specific impacts of each of these projects on visual character cannot be determined. At the program level, these projects are anticipated to provide visual focus and an intensification of uses and activity to Downtown Livermore. The Livermore Valley Center and the entertainment facility could provide visual landmarks that would make Downtown appear distinctive. The mixed-use project would convert an underused parking lot into a mixed-use complex that would be more visually compatible with surrounding development. Therefore, at the program level of analysis, the catalyst projects are anticipated to enhance the visual character of Downtown. In this and many other ways, the Downtown Specific Plan would result in an overall benefit to the visual character of Downtown Livermore.

Light and Glare. Implementation of the Downtown Specific Plan would result in the construction of new buildings in Downtown Livermore that could contribute to increased light and glare in the area. However, light and glare would be minimized through the implementation of the Design Guidelines, which seek to reduce the use of reflective material on buildings and restrict lighting so that it does not intrude on adjacent uses. The Design Guidelines for windows (commercial and

mixed-use buildings, and multi-family residential buildings) ban the use of reflective glazing and encourage the use of non-reflective films, coatings, and shading devices to reduce glare. The Design Guidelines for lighting design encourage the avoidance of unnecessary glare and the concealment of light fixtures to avoid unnecessary glare and intrusion of light into adjacent properties. In addition, the Design Guidelines for poles and mounting height state that light sources should be kept low to prevent light from spilling into adjacent areas. Therefore, implementation of the Downtown Specific Plan would not result in the creation of substantial light or glare that would adversely affect day or nighttime views.

(2) Significant Impacts of the Downtown Specific Plan. No significant impacts on visual resources would result from implementation of the Downtown Specific Plan.

IV. SETTING, IMPACTS AND MITIGATION MEASURES

This chapter contains an analysis of each environmental topic that has been identified through preliminary environmental analysis for the City of Livermore Draft General Plan and Downtown Specific Plan, and, as such, constitutes the major portion of this Draft EIR. Sections A through M of this chapter describe the environmental setting of the proposed project as it relates to each specific environmental issue, the impacts resulting from implementation of the project, and mitigation measures, as appropriate, that would reduce impacts of the project. Please note that the setting information for each topic is included in Volume 1: Master Environmental Assessment (MEA), bound separately.

A. DETERMINATION OF SIGNIFICANCE

Under CEQA, a significant effect is defined as a substantial, or potentially substantial, adverse change in the environment.¹ The *CEQA Guidelines* direct that this determination be based on scientific and factual data. Each impact evaluation discussion in this chapter is prefaced by a summary of criteria of significance, which are the thresholds for determining whether an impact is significant. Staff from the City of Livermore and the consulting firm of LSA Associates, Inc. have developed these criteria in a cooperative process using the *CEQA Guidelines* and historic precedent in Livermore.

B. ISSUES ADDRESSED IN THE DRAFT EIR

The following environmental issues are addressed in this chapter:

- A. Land Use
- B. Population, Employment, and Housing
- C. Traffic and Circulation
- D. Utilities, Infrastructure, and Energy
- E. Public Services
- F. Cultural Resources
- G. Air Quality
- H. Noise
- I. Biological Resources
- J. Geology, Soils, and Seismicity
- K. Hydrology and Water Quality
- L. Hazards
- M. Visual Resources

¹ Public Resources Code Section 21068.

C. FORMAT OF ISSUE SECTIONS

Each environmental issue section has three subsections: 1) Setting, 2) Guiding Documents, and 3) Impacts and Mitigation Measures for the proposed project. Each impacts and mitigation measures subsection is further divided into an initial discussion of *less-than-significant* impacts and a following discussion of *significant* impacts. Any identified significant impacts are numbered and shown in bold type, and the corresponding mitigation measures are numbered and indented. Significant impacts and mitigation measures are numbered consecutively within each topic and begin with an acronymic reference to the impact section (e.g., LU for Land Use). The following symbols are used for individual topics:

LU:	Land Use
POP:	Population, Employment, and Housing
TRAF:	Traffic and Circulation
INF:	Utilities, Infrastructure, and Energy
PUB:	Public Services
CULT:	Cultural Resources
AQ:	Air Quality
NOISE:	Noise
BIO:	Biological Resources
GEO:	Geology, Soils, and Mineral Resources
HYD:	Hydrology and Water Quality
HAZ:	Hazards
VIS:	Visual Resources

The following notations are provided after each identified significant impact and mitigation measure:

SU	=	Significant and Unavoidable
S	=	Significant
LTS	=	Less than Significant

These notations indicate the significance of the impact before and after mitigation.

V. ALTERNATIVES

The *CEQA Guidelines* require an analysis of a range of reasonable alternatives to the proposed project, or the location of the proposed project, which could feasibly attain most of the project's basic objectives and avoid or substantially lessen any of the significant effects of the proposed project. The range of alternatives required in an EIR is governed by a "rule of reason" that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice.¹

The proposed project has been described and analyzed in the previous chapters with an emphasis on potentially significant impacts and recommended mitigation measures to avoid these impacts. The following discussion is intended to inform the public and decision-makers of the feasible alternatives to the proposed project.

This chapter is divided into three sections. The first section provides a brief discussion of alternatives that were considered but rejected from further consideration. The second section briefly describes the principal characteristics of the alternatives considered in this section (i.e., the No Development alternative, the No Project alternative, the Redistributed alternative, and the Balanced alternative) and describes the anticipated environmental effects of each alternative. The last section discusses the environmentally-superior alternative.

A. ALTERNATIVES THAT WERE CONSIDERED BUT REJECTED

The following alternative to the proposed project (the Draft General Plan and Downtown Specific Plan) was considered but rejected from further consideration for the reasons provided.

1. North Livermore Development Alternative

The North Livermore Development alternative would result in the development of a mixed-use community north of I-580 that would be fully incorporated into the City. North Livermore would contain residential uses (with housing for a maximum of 30,000 people), commercial and institutional uses, and open space areas. North Livermore currently contains agricultural uses. Higher-density residential areas would be provided to allow for a future BART extension. A general plan amendment and environmental impact report for urban development in the North Livermore area were approved by the City in 1993. This alternative was further considered in a draft specific plan and environmental impact report that were published in 2000 (but not adopted).

However, on December 16, 2002, the Livermore City Council adopted the North Livermore Urban Growth Boundary Initiative, which established an Urban Growth Boundary on the northern side of the City that excluded urban development in the North Livermore area. In addition, the Initiative limited development in the area to that allowed under the East County Area Plan. The Initiative also specified minimum lot sizes of 40 to 100 acres in the event that North Livermore were to be annexed

¹ *CEQA Guidelines*, 2003. Section 15126.6.

to the City in the future. This measure thus effectively excludes the relatively more intense development envisioned in the North Livermore Development alternative. Therefore, this alternative is currently infeasible and does not meet the objectives of the Draft General Plan. For these reasons, it was not subject to further analysis or consideration.

B. ALTERNATIVES TO THE PROPOSED PROJECT

This section analyzes the following four alternatives to the proposed project:

- The **No Development alternative** assumes that no future development would occur within Livermore, and that existing conditions would remain.
- The CEQA-required **No Project alternative** assumes that the proposed project would not be adopted or implemented and that development would continue in accordance with the Community General Plan 1976-2000.
- The **Redistributed alternative** assumes that more housing would be built throughout Livermore, especially in outlying areas of the City.
- The **Balanced alternative** assumes that providing a balance between jobs and housing would be the primary focus of the Draft General Plan and the Downtown Specific Plan.

For each alternative, a brief discussion of its principal characteristics is followed by an analysis of the alternative. The emphasis of the analysis is on the alternative's relative adverse effects compared to the proposed project and a determination of whether or not the alternative would reduce, eliminate, or create new significant impacts. Refer to Table V-1 for a summary of the relative environmental effects of the project alternatives compared to the proposed project.

1. No Development Alternative

The following provides a brief description and analysis of the No Development alternative.

a. Principal Characteristics. The No Development alternative assumes that physical conditions that existed in Livermore at the time the Notice of Preparation for this EIR was circulated (March, 2003) would remain. No substantial additional development would occur in Livermore, including the development of already-approved projects. New construction would be associated with the replacement and rehabilitation of existing residential units and commercial and industrial space. Only policies associated with maintaining existing development would be incorporated into the Draft General Plan. Under this alternative, jobs and population in Livermore would remain approximately constant (although a small amount of growth could occur through better utilization of existing development): the City's level of development would remain at approximately 41,500 jobs and 76,700 persons.

b. Analysis of No Development Alternative. The physical environmental conditions that would result from the No Development alternative are discussed in the various topical sections of the Master Environmental Assessment (MEA) (Volume 1 of this EIR), which detail existing environmental conditions in the Livermore Planning Area. Implementation of the No Development alternative would result in the reduction or avoidance of the significant impacts associated with the Draft General Plan in the following topical areas: traffic and circulation; public services; air quality; and noise.

Table V-1: Alternatives Comparison

Issue	Proposed Project Without Mitigation	Proposed Project With Mitigation	No Development Alternative	No Project Alternative	Redistributed Alternative	Balanced Alternative
Land Use	LTS	LTS	G	G	S	S
Population and Housing	LTS	LTS	G	G	L	L
Traffic and Circulation	SIG	SIG	L	L	G	G
Utilities and Energy	LTS	LTS	L	G	S	S
Public Services	SIG	LTS	L	S	S	S
Cultural Resources	LTS	LTS	L	S	S	S
Air Quality	SIG	SIG	L	S	S	S
Noise	SIG	SIG	L	S	S	S
Biological Resources	LTS	LTS	L	S	S	S
Geology, Soils, and Seismicity	LTS	LTS	L	S	S	S
Hydrology and Water Quality	LTS	LTS	L	G	S	S
Hazards	LTS	LTS	L	S	S	S
Visual Resources	LTS	LTS	L	S	S	S

Notes:

SU = Significant and unavoidable impact(s)

SIG = Significant impact(s)

LTS = Less than significant impact(s)

S = Similar to proposed project (without mitigation)

L = Less than proposed project (without mitigation)

G = Greater than proposed project (without mitigation)

Source: LSA Associates, 2003.

However, the No Development alternative would result in significant unavoidable land use and population, employment, and housing impacts. Implementation of this alternative would severely restrict the construction of additional housing, and would prevent the City from meeting its regional housing allocation. A static housing supply in Livermore would further exacerbate the existing mismatch between housing supply and demand, driving housing prices upward and reducing the availability of affordable housing. In addition, the exclusion of development in Livermore could result in the development of unincorporated portions of the County and rural areas outside of the Bay Area where the environmental impacts associated with new development (e.g., traffic congestion, conversion of agricultural land to urban uses, and increased air quality degradation) could be more substantial. Approximately 27 roadway intersections would operate at Mid-LOS D or worse under the No Development alternative. In addition, the jobs/housing balance in Livermore would remain at approximately 1.6, representing a continued high rate of in-commuting.

This alternative would also fail to achieve the major objectives of the proposed project, including the construction of affordable housing, the development of transit-oriented neighborhoods, and the rejuvenation of Downtown Livermore. The No Development alternative would restrict the City from addressing many of the land use-related problems that detract from current environmental quality in Livermore.

2. No Project Alternative

The following provides a brief description and analysis of the No Project alternative.

a. Principal Characteristics. The No Project alternative assumes that neither the Draft General Plan nor the Downtown Specific Plan would be adopted or implemented. This alternative also assumes that development that would occur in Livermore would be consistent with the Community General Plan 1976-2000, which is the existing General Plan that guides land use and development in Livermore. Existing land use designations in Livermore would not change under this alternative. Table V-2, Livermore No Project Alternative 2025 Jobs and Housing Units Summary, provides a summary of the growth in jobs and housing that would result from this alternative by the year 2025. Refer to Figure 2-3, General Plan Land Use Designations, in the MEA for a graphical representation of the land uses underlying this alternative.

Under the No Project alternative, the City's population and jobs would increase consistent with development allowed under the Community General Plan 1976-2000. Implementation of the No Project alternative would result in an increase of 48,509 jobs, and 3,638 housing units by 2025 (compared to an increase of 46,461 jobs and 11,861 housing units as a result of Draft General Plan implementation). The jobs/employed residents ratio would be 1.9 in 2025, representing a substantial imbalance between jobs and housing. Because of the long-term anticipated growth in population and jobs, and the jobs/housing imbalance, it is anticipated that regional and local traffic congestion and associated noise and air pollution would continue to increase.

These anticipated future conditions resulting from the No Project alternative are different from the analysis contained throughout Chapter IV of the EIR, which compares the proposed project to existing conditions as they were at the time the Notice of Preparation for the EIR was posted. Here, the No Project alternative examines a future condition that is trended forward from today, on the basis of the earlier (but still operative) Community General Plan 1976-2000.

b. Analysis of No Project Alternative. The No Project alternative could result in the following environmental impacts:

(1) **Land Use.** Under the No Project alternative, land uses in Livermore would change consistent with the Community General Plan 1976-2000. These land uses would not result in the construction of a physical feature, such as a railroad or a major highway, or the removal of a major means of access that would physically divide or isolate existing communities within Livermore. Implementation of the No Project alternative would result in the introduction of new land uses to the Planning Area, including urban low- and medium-density residential uses in the far northeastern portion of the City, and low and high-intensity industrial uses east of Downtown. Land use designations in the Community General Plan tend to be separated geographically: residential areas are generally separated from commercial and industrial areas, and no areas are designated specifically for mixed land uses. Therefore, the No Project alternative is not expected to introduce new land uses that would conflict with existing uses.

Table V-2: Livermore No Project Alternative 2025 Jobs and Housing Units Summary

Location	Land Use Designations	Jobs	Housing
City-wide Development			
Existing Industrial Space (currently vacant)		4,329	–
Existing Business Commercial Park Space (currently vacant)		4,882	–
Committed to be Built Industrial and Business Commercial Park Space ^a		4,801	–
Committed to be Built Housing Units ^a		–	1,261
Projected Government-related Job Growth		700	–
Projected Urban Designation Development		579	573
Projected Residential Infill Development ^b		–	197
Projected Additional Development (Outside Change Areas)		2,417	8
City-wide Development Subtotal		17,708	2,039
Change Area Development^c			
Dispersed Commercial/Industrial Sites			
Nob Hill (Pacific/S. Livermore)	Neighborhood Commercial	168	–
Rincon (Pine)	Neighborhood Commercial	157	–
Geno's Deli (North Vasco)	Service Commercial, Urban Medium Residential (4.5 units/acre)	–	21
Righetti (Vasco/East)	Low Intensity Industrial	85	–
Vacant I-580 Commercial Site	Commercial Serving General Commercial	252	–
Adventus	Very Low Density Single Family (4 units/acre), Support Commercial, Hillside Conservation	131	120
Ferreri	Highway Commercial	908	–
Sensitive Habitat Parcels			
Scenic Avenue	Urban Medium High Residential (6 units/acre)	–	126
Northeast Parcels	Urban Low Residential 2 (2 units/acre), Urban Low Medium Residential (3 units/acre)	–	200
East Side Area			
E-1	Low Intensity Industrial	588	–
E-2	High Intensity Industrial	2,615	–
E-3	High Intensity Industrial	1,069	–
E-4	High Intensity Industrial	1,327	–
E-5	High Intensity Industrial	997	–
Greenville BART Transit-Oriented Development (TOD)			
North of I-580	Urban Low Residential 2 (2 units/acre), Urban Low Medium Residential (3 units/acre)	–	270
South of I-580	Business Commercial Park	2,437	–
West Side Area			
W-1	Business Commercial Park, Low Intensity Industrial	4,057	–
W-2	Business Commercial Park, Low Intensity Industrial, Limited Agriculture	6,194	–
W-3	Business Commercial Park	8,590	690
Residential Infill Parcels^d			
Arroyo Road/Buranis Property	Rural Residential (1 unit/acre)	–	6
Contractors Way	High Intensity Industrial	128	–
Other Vacant Parcels	Various Residential Designations (1-22 units/acre)	–	167
Southfront Commercial Area	Service Commercial	1,098	–
Change Area Development Subtotal		30,801	1,599
TOTAL NEW DEVELOPMENT		48,509	3,638
TOTAL EXISTING DEVELOPMENT		41,500	28,300
GRAND TOTAL 2025 DEVELOPMENT		90,009	31,930

^a “Committed to be built” means that these developments have construction permits and vesting rights to develop.

^b Potential infill development on residential parcels zoned RM: Medium Density Residential District and R2: Duplex District where second units are allowed by right.

^c Change areas are shown on Figure III-1.

^d On all other residential infill parcels, shown on Figure III-1, the existing General Plan designations remain in effect.

Source: Design Community & Environment; LSA Associates, Inc., 2003.

In addition, the Community General Plan, which limits intensity of development within the Urban Growth Boundary, is consistent with the County General Plan and the South Livermore Valley Specific Plan. Prime Farmland and Williamson Act Contract lands, which are confined to the southeast and far eastern portions of the City, and the North Livermore Area, would be minimally impacted by the No Project alternative. Existing policies preventing large-scale development of agricultural lands would reduce the No Project alternative’s impact on Prime Farmland and protected agricultural lands. Development that would occur as part of the No Project alternative would occur at a relatively low density. Such development intensities reduce the potential for the future development of transit nodes and transit-oriented communities. In addition, low-density development reduces the amount of housing and commercial space that can be built within or adjacent to existing urban areas, thereby increasing the need to develop previously undeveloped land outside of existing urbanized areas. Therefore, implementation of the No Project alternative would increase urban development pressures in the vicinity of Livermore and in other portions of Alameda County.

(2) Population, Employment, and Housing. The No Project alternative would result in the development of approximately 3,638 housing units by 2025, substantially fewer than would be developed as part of the proposed project. Population growth that would occur as part of the No Project alternative would be consistent with existing population patterns in the City, and would not qualify as unanticipated population growth. Refer to Table V-3, Population and Jobs at Buildout, for a comparison of the jobs and population increases that would occur as a result of implementation of each alternative. In addition,

implementation of the No Project alternative would not result in major redevelopment schemes that would displace existing housing, or otherwise indirectly result in the removal of affordable housing. Although development that would occur as part of the No Project alternative could enable the City to meet its “fair share” housing allocation in the near term (depending on the rate of housing development), the construction of sufficient housing would be less likely under the No Project alternative due to the lower number of housing units constructed at buildout (compared to the proposed project). In addition, buildout of the No Project alternative would ultimately result in a jobs/housing ratio of approximately 1.9. The physical manifestations of such a jobs/housing imbalance could include a shortage of housing (especially affordable housing), a high rate of in-commuting, and air quality and noise impacts associated with increased traffic.

Table V-3: Population and Jobs at Buildout

	Proposed Project	No Development Alternative	No Project Alternative	Redistributed Alternative	Balanced Alternative
Jobs	87,960	41,500	89,430	85,675	74,082
Population	105,077	76,700	93,197	110,805	127,479
Jobs/Employed Residents Ratio	1.5	1.6	1.9	1.4	1.0

Source: LSA Associates, Inc., 2003.

(3) Traffic and Circulation. The No Project alternative is expected to generate eight percent fewer additional vehicle trips compared to the proposed project (i.e., 38,100 fewer added trips per day). Refer to Table V-4 for a comparison of the traffic impacts that would occur as a result of implementation of each alternative. Refer to Appendix D for a list of impacted intersections for each alternative. Draft General Plan policies relating to circulation under the No Project alternative would ensure less-than-significant impacts in the areas of transit services, emergency access, parking, pedestrians, bicycle travel and regional transportation policies. The No Project alternative would

result in the operation of 27 intersections at worse than mid-LOS D conditions. (Representing seven more substandard intersections than would result from the proposed project.)

(4) Utilities, Infrastructure, and Energy. Development (including job and population growth) associated with implementation of the No Project alternative is within the range of development that is anticipated by Zone 7. Therefore, there is sufficient water supply for development that would occur under this alternative.

Mitigation imposed on new developments would ensure the provision of adequate water storage facilities. Regular short-term and long-range planning by utility companies would ensure that necessary improvements would be made in order to provide new development with adequate gas, electric, telephone, and cable services. In addition, the existing Vasco Road Sanitary Landfill has sufficient capacity to accommodate waste produced by the No Project alternative. However, the Community General Plan does not contain policies that specifically promote the development of alternative energy sources. Therefore, the No Project alternative could result in the wasteful use of energy.

The No Project alternative, which would result in the development of currently undeveloped portions of Livermore within the Urban Growth Boundary (e.g., areas north of I-580), would require the extension of major water, wastewater, and stormwater facilities. The development of these facilities, which could be built in the vicinity of sensitive biological and cultural resources, could result in adverse environmental impacts. In addition, development that would occur as a result of the No Project alternative would generate wastewater that would exceed the treatment capacity of the City Water Reclamation Plant and the transport capacity of the existing LAVWMA export pipeline.

(5) Public Services. Population and job growth associated with the No Project alternative would increase demand for park space and police, fire, and school services. Additional public services, including new schools, parks, and fire fighting and emergency facilities, would be funded through taxes on new development, mitigation fees, and/or developer fees. Public service agencies in Livermore complete regular long-range plans to determine facility and staffing modifications that may need to be made to accommodate projected growth. Because the No Project alternative represents a continuation of existing growth rates and patterns, it is anticipated that the alternative would not result in an increased demand for services that would exceed planned staffing levels or the capabilities of planned service facilities. New development would be built in compliance with existing fire protection standards and would not be susceptible to urban fire hazards. In addition, projected growth, which would be concentrated within or near existing urbanized areas, and would not be located immediately adjacent to wooded areas, would not be susceptible to urban fire hazards. The No Project alternative would not result in the removal of existing park or open space. The

Table V-4: Traffic and Circulation Comparison

	Proposed Project	No Development Alternative	No Project Alternative	Redistributed Alternative	Balanced Alternative
Total Daily Trips Generated Within Livermore	1,189,500	783,400	1,151,400	1,191,000	1,261,300
Daily Added Trips Generated Within Livermore	480,700	74,600	442,600	482,200	552,400
Percent Increase in Trips over 2003 Conditions	68%	11%	62%	68%	78%
Signalized Intersections Exceeding Mid-LOS D Threshold ^a	20	11	26	31	28

^a See Appendix D-7 for a list of impacted intersections.

Source: Meyer, Mohaddes Associates, Inc., 2003.

population and job growth that would occur under the No Project alternative would exacerbate existing deficient LPD response times, extend LFPD emergency response times beyond set standards, and result in insufficient City-wide park space. In addition, the construction of new service facilities that would be required to accommodate growth associated with the No Project alternative could result in adverse environmental impacts.

(6) Cultural Resources. The No Project alternative would result in continued development that could affect cultural resources in Livermore. Because both documented and undocumented cultural resources are located throughout the City in areas designated for additional development in the Community General Plan, this alternative would result in the following cultural resources impacts: a substantial adverse change to the significance of a historical or archaeological resource; destruction of a paleontological resource or unique geologic feature; and disturbance of human remains.

(7) Air Quality. Construction activities that would occur under the No Project alternative would be required to comply with BAAQMD “Basic Measures” or “Enhanced Measures,” which would reduce particulate matter (PM₁₀) emissions to a less-than-significant level. Although vehicle use and carbon monoxide (CO) emissions would increase as a result of implementation of the alternative, CO concentrations would be substantially below State and federal CO standards. In addition, buildout of the No Project alternative would not result in the development of odor-emitting land uses adjacent to sensitive uses (or the development of sensitive uses adjacent to odor-emitting uses). The use of wood-burning stoves, and the generation of fugitive dust (from construction, agricultural, and quarrying activities) would result in significant impacts to air quality. In addition, although the No Project alternative would result in the lowest regional vehicular emissions out of all the continued development project alternatives (i.e., excepting the No Development alternative) these emissions would still exceed thresholds established by the BAAQMD.

(8) Noise. Compliance with the existing City Noise Ordinance would ensure that the No Project alternative would not result in significant noise-related impacts associated with construction activities and stationary sources, such as loading/unloading operations and outdoor speakers. Rail operations within Livermore are not anticipated to experience a substantial future increase and would not expose sensitive uses to increased noise levels. Implementation of the No Project alternative would increase traffic on roads within the Planning Area; this increase in traffic would result in a noise increase exceeding 4 dBA on select roadways in Livermore, representing a potentially significant noise impact. In addition, implementation of the No Project alternative, which would expand the geographic coverage of development in Livermore, would expose residents to noise from aircraft overflights that could exceed the State’s 45 dBA CNEL standard for interior noise levels. This impact would be considered significant. Refer to Appendix F for a list of noise levels along roadway segments that would result from implementation of the No Project alternative.

(9) Biological Resources. Sensitive biological resources, including arroyos, creek corridors, vernal pools, and protected plant and animal species, are located within the Planning Area and could be adversely affected by development that would take place as part of the No Project alternative. This development would occur both on infill sites and greenfield sites that may contain sensitive biological resources. Because the No Project alternative would not result in the widespread development of open space areas, the alternative is not anticipated to adversely impact either wildlife movement or wildlife corridors. In addition, the No Project alternative is consistent with local, regional, and State

policies protecting biological resources. The alternative would result in the following potentially significant impacts to biological resources: adverse effects to ecologically-sensitive areas, vernal pool fairy shrimp, and raptor nests; “take” of animals and habitat listed under the State and federal Endangered Species Act; loss of other protected plant and animal species, including ancestral trees; loss of waters of the U.S. and loss of waters of the State.

(10) Geology, Soils, and Seismicity. Adherence to existing regulations, including the Alquist-Priolo Earthquake Fault Zoning Act and the Uniform Building Code would ensure that development resulting from the No Project alternative would not result in significant impacts related to fault rupture and expansive soils. Policies contained in the Community General Plan restrict development on areas containing aggregate resources. Therefore, implementation of the No Project alternative would not result in the loss of availability of a known mineral resource. Like development that would occur as a result of implementation of the proposed project, development that would occur under the No Project alternative would result in the exposure of people to relatively high seismic hazards. However, this risk is present throughout the seismically-active San Francisco Bay Area and is not considered a significant unavoidable impact. In addition, the No Project alternative, which would allow development on areas with steep slopes, could expose people to hazards resulting from landslide events.

(11) Hydrology and Water Quality. New development that would occur under the No Project alternative would be required to comply with the storm water regulations and permitting requirements of the National Pollution Discharge Elimination System (NPDES) Nonpoint Source Program, the San Francisco Regional Water Quality Control Board (RWQCB), and the Alameda Countywide Clean Water Program (ACCWP). Compliance with these regulations and permitting requirements would ensure that the No Project alternative would not generate stormwater that would have a substantial adverse effect on water bodies, or create flood hazards that would represent a risk to human health. Implementation of the One Hundred-year Floodplain Policies in the Community General Plan would ensure that the No Project alternative would not expose people or structures to hazards associated with flooding. In addition, the Community General Plan would not allow development in flood zones that could result in increased erosion, siltation, or that would redirect flood waters. However, the Community General Plan does not contain feasible, easily-implemented policies that specifically disallow: 1) the placement of housing and other structures within a 100-year flood zone; 2) the alteration of natural water courses; 3) the depletion of groundwater or the loss of publicly-available water supplies; and 4) the disturbance, removal, or modification of a seep or spring that could adversely affect water bodies or slope stability. Therefore, the No Project alternative could result in adverse impacts associated with flooding, watercourse alteration, groundwater recharge, and the modification of seeps and springs.

(12) Hazards. Implementation of existing federal, State, and local regulations pertaining to the safe storage, use, transport, disposal, and remediation of hazardous materials would ensure that impacts to human health resulting from the handling of hazardous materials or development in the vicinity of contaminated sites would be less than significant. In addition, due to the existence of emergency response and evacuation plans, and the regular update of such plans by local and State agencies, it is not anticipated that implementation of the No Project alternative would adversely impact the ability of the City to respond effectively to emergencies. The Community General Plan lacks policies and plans associated with the safe removal of asbestos and lead from existing buildings.

However, compliance with existing regulations related to lead and asbestos removal would reduce impacts associated with lead and asbestos abatement to a less-than-significant level.

(13) Visual Resources. Visual Resources Policies in the Community General Plan would ensure that new development would not adversely impact the visual quality of ridgelines, wooded areas, upland areas, view corridors from I-580, and established scenic corridors. In addition, the Community General Plan is consistent with applicable County policies and regulations governing aesthetics and community character. Therefore, the No Project alternative would not result in substantial adverse impacts related to inconsistencies with existing visual resources policies, or the disruption of scenic views. However, implementation of the No Project alternative could result in the development of low-density land uses on the outskirts of Livermore that could have a substantial adverse impact on the visual character of areas that now predominantly contain open space uses. In addition, development associated with the No Project alternative could create substantial light and glare that could adversely affect day or nighttime views.

1. Redistributed Alternative

The following provides a brief description of the Redistributed alternative and potential impacts associated with its implementation.

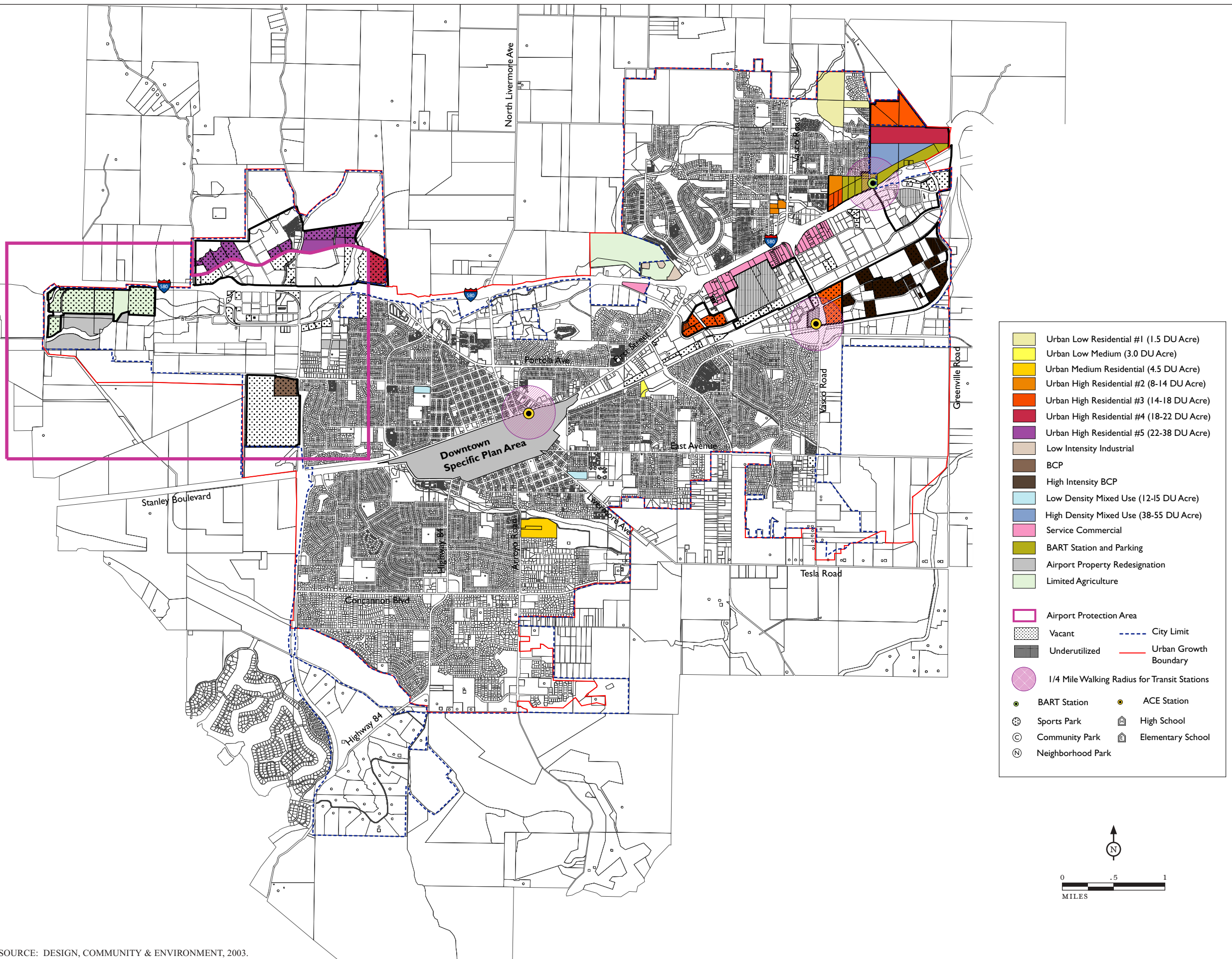
a. Principal Characteristics. The Redistributed alternative re-allocates land use designations proposed in the Draft General Plan to achieve the following objectives: 1) a two to three-story downtown; and 2) an increase in housing, especially in outlying neighborhoods of the City. As indicated in Table V-5, Livermore Redistributed Alternative 2025 Jobs and Housing Units Summary, implementation of the Redistributed alternative would result in an increase of 44,175 jobs and 12,712 housing units by 2025 (compared to an increase of 46,461 jobs and 11,861 housing units as a result of Draft General Plan implementation). The Redistributed alternative would result in a jobs/housing ratio of 1.4 by 2025. Although this jobs/housing ratio is not as imbalanced as the No Project alternative, it suggests a relatively high rate of commuting (along with corresponding noise and air quality effects) and upward pressure on housing prices.

The Redistributed alternative includes the following land use designations that differ from the land use designations proposed as part of the Draft General Plan. Refer to Figure V-1 for a graphical representation of the Redistributed alternative.

- A reduced Airport Protection Area (APA) to the north of the Airport;
- Urban High Residential-5 designations (22 to 38 dwelling units per acre) to the north of I-580 and to the east and west of Collier Canyon Road (West Side Area);
- Limited Agriculture designations east of El Charro Road, and the designation for a sports park.

b. Analysis of Redistributed Alternative. The Redistributed alternative could result in the following environmental impacts:

(1) Land Use. Implementation of the Redistributed alternative would result in the construction of moderate and high-density housing on the outskirts of Livermore. The alternative would also result in downtown development that is slightly less intense than that proposed as part of the Downtown Specific Plan. The Redistributed alternative would not result in the construction of a



SOURCE: DESIGN, COMMUNITY & ENVIRONMENT, 2003.

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FIGURE V-1

Livermore Draft General Plan and
 Downtown Specific Plan EIR
 Draft General Plan Alternatives:
 Redistributed Alternative

Table V-5: Livermore Redistributed Alternative 2025 Jobs and Housing Units Summary

Location	Land Use Designations	Jobs	Housing
City-wide Development			
Existing Industrial Space (currently vacant)		4,329	–
Existing Business Commercial Park Space (currently vacant)		4,882	–
Committed to be Built Industrial and Business Commercial Park Space ^a		4,801	–
Committed to be Built Housing Units ^a		–	1,261
Projected Government-related Job Growth		700	–
Projected Downtown Specific Plan Development		290	1,871
Projected Residential Infill Development ^b		–	197
Projected Additional Development (Outside Change Areas)		2,548	8
City-wide Development Subtotal		17,549	3,329
Change Area Development^c			
Dispersed Commercial/Industrial Sites			
Nob Hill (Pacific/S. Livermore)	Low Density Mixed Use (12-15 units/acre)	168	97
Rincon (Pine)	Low Density Mixed Use (12-15 units/acre)	157	90
Geno's Deli (North Vasco)	Urban High Residential 2 (8-14 units/acre)	–	96
Righetti (Vasco/East)	Low Intensity Industrial (Retained)	99	–
Vacant I-580 Commercial Site	Service Commercial	252	–
Adventus	Limited Agricultural (High School Overlay)	–	–
Ferreri	Low Intensity Industrial, Limited Agriculture	244	–
Sensitive Habitat Parcels			
Scenic Avenue	Transfer Development Rights applies at 6 units/acre	–	–
Northeast Parcels	Urban Low Residential 1 (1.5 units/acre)	–	119
East Side Area			
E-1	Urban High Residential 3 (14-18 units/acre)	–	394
E-2	Low Intensity Industrial	2,615	–
E-3	Urban High Residential 3 (14-18 units/acre), High Intensity Industrial (Retained)	279	534
E-4	High Intensity Business Commercial Park	5,131	–
E-5	High Intensity Business Commercial Park	4,272	–
Greenville BART Transit-Oriented Development (TOD)			
North of I-580	High Density Mixed Use (38-55 units/ac), Urban High Residential 4 (18-22 units/acre), Urban High Residential 3 (14-18 units/acre), Urban High Residential 2 (8-14 units/acre)	1,307	4,474
South of I-580	Business Commercial Park (Retained)	2,437	–
West Side Area			
W-1	Business Commercial Park, Low Intensity Industrial (Retained)	4,942	–
W-2	Limited Agriculture, (Sports Park Overlay)	–	–
W-3	Reduce APA to North Canyons Blvd. Urban High Residential 5 (22-38 units/acre), Business Commercial Park (Retained)	3,443	3,160
Residential Infill Parcels^d			
Arroyo Road/Buranis Property	Urban Medium Residential (4.5 units/acre)	–	144
Contractors Way	Urban High Residential 4 (18-22 units/acre)	–	179
Other Vacant Parcels	Existing General Plan Designations Retained	182	97
Southfront Commercial Area	Service Commercial	1,098	–
Change Area Development Subtotal		26,626	9,383
TOTAL NEW DEVELOPMENT		44,175	12,712
TOTAL EXISTING DEVELOPMENT		41,500	28,300
GRAND TOTAL 2025 DEVELOPMENT		85,675	41,012

^a “Committed to be built” means that these developments have construction permits and vesting rights to develop.

^b Potential infill development on residential parcels zoned RM: Medium Density Residential District and R2: Duplex District where second units are allowed by right.

^c Change areas are shown on Figure III-1.

^d On all other residential infill parcels, shown on Figure III-1, the existing General Plan designations remain in effect.

Source: Design Community & Environment; LSA Associates, Inc., 2003.

physical feature or the removal of major access to portions of Livermore that would divide or isolate existing City districts. Intensified residential uses on the urban fringe do not, in and of themselves, create land use conflicts with surrounding (e.g., agricultural, open space, and low-density uses). Many vibrant and well-planned communities are characterized by intense land uses that front directly onto open space or agricultural uses.

In addition, the Redistributed alternative, which concentrates development within the existing Livermore City limits, and limits development on the south side of the City, is consistent with the County General Plan and the South Livermore Specific Plan. Policies limiting the development of Prime Farmland and Williamson Contract Land that would be implemented as part of the Redistributed alternative would result in a minimal direct impact on agricultural land, including land designated for agriculture pursuant to the Williamson Act. The Redistributed alternative would result in the development of high-density residential uses north of I-580 in the Greenville BART TOD. Because development of existing agricultural land and open space outside the City limits is constrained by the presence of an Urban Growth Boundary (UGB) encircling the City, development that would occur as part of the Redistributed alternative would occur only within the UGB. Major infrastructure would not be extended outside of the UGB. Therefore, implementation of the Redistributed alternative would not directly or indirectly result in the conversion of farmland to non-agricultural uses.

(2) Population, Employment, and Housing. Implementation of the Redistributed alternative would result in the development of approximately 12,712 additional housing units by 2025, 851 more housing units than would be developed under the proposed project. Under this alternative, Livermore's population would be 110,805 by 2025. This population increase would be only slightly higher than the Association of Bay Area Governments' (ABAG) population projections for Livermore (106,800) and would not be considered unanticipated population growth. Refer to Table V-3, Population and Jobs at Buildout, for a comparison of the jobs and population increases that would occur under each alternative. The Redistributed alternative would not include large-scale redevelopment plans that would displace existing housing. Implementation of the alternative would enable Livermore to exceed its current "fair share" housing allocation and increase the overall housing supply in the City. Even though the Redistributed alternative would result in the construction of more housing and fewer jobs than the proposed project, the alternative would still result in a jobs/housing ratio of 1.4, representing a potential housing shortage and the generation of associated environmental impacts, such as increased traffic, and noise and air pollution. In addition, the Redistributed alternative would alter the population distribution of the City by increasing the residential population on the outskirts of the City without a corresponding population increase in central portions of Livermore.

(3) Traffic and Circulation. The Redistributed alternative is expected to generate approximately the same number of vehicle trips as the proposed project (about 482,000 added vehicle trips per day) (see Table V-4). Draft General Plan policies relating to circulation under the Redistributed alternative would ensure less-than-significant impacts in the areas of transit services, emergency access, parking, pedestrians, bicycle travel and regional transportation policies. The Redistributed alternative is expected to result in the operation of 33 intersections at worse than Mid-LOS D conditions (13 more intersections than the proposed project). The intersections that would operate at Mid-LOS D or worse would be significantly impacted by the Redistributed alternative.

(4) Utilities, Infrastructure, and Energy. Development (including job and population growth) associated with implementation of the Redistributed alternative is approximately within the range of development that was anticipated by Zone 7 during that agency's long-range water supply planning process. Therefore, there is sufficient water supply for development that would occur under this alternative. Mitigation imposed on new development projects would ensure the provision of adequate water storage facilities. Regular short-term and long-range planning by utility companies, in addition to the implementation of policies that are part of the Redistributed alternative, would ensure that necessary improvements would be made in order to provide new development with adequate gas, electric, telephone, and cable services. The implementation of waste-reduction policies that are part of the Redistributed alternative would ensure that the Vasco Road Sanitary Landfill has sufficient capacity to accommodate waste generated by new development. The Redistributed alternative, which contains policies that promote energy efficiency and the conservation of energy, would result in the efficient use of energy.

The Redistributed alternative, which would result in the development of currently undeveloped portions of Livermore (e.g., areas north of I-580), would require the extension of major water, wastewater, and stormwater facilities. Compliance with Draft General Plan policies would reduce potential impacts associated with the extension of utility lines to a less-than-significant level. In addition, the implementation of Draft General Plan policies would ensure that expansions of wastewater treatment facilities would not result in significant environmental impacts.

(5) Public Services. Population and job growth associated with the Redistributed alternative would increase demand for park space, and police, fire, and school services. Additional public services, including new schools, parks, and fire fighting and emergency facilities, would be funded through taxes on new development, developer fees, and mitigation fees. Revenue generated from new development would be sufficient to hire additional police and fire protection staff. In addition, compliance with Draft General Plan policies would ensure the maintenance of emergency response times. Urban fire hazard impacts resulting from implementation of the Redistributed alternative would be reduced to a less-than-significant level through compliance with existing fire protection regulations, review of projects by the Fire Protection Bureau, and compliance with Draft General Plan policies. Because the Redistributed alternative would result in the construction of housing near the Livermore City limits, in the vicinity of open space, the alternative would increase the exposure of persons to wildland fire hazards. Implementation of Draft General Plan policies that require review of projects in fire hazard areas would reduce impacts from wildland fire hazards to a less-than-significant level. Like the proposed project, the Redistributed alternative would result in insufficient park space in Downtown Livermore.

(6) Cultural Resources. The Redistributed alternative would result in the development of areas that could contain undocumented cultural resources, or that currently contain documented cultural resources. These cultural resources include historic structures, and archaeological and paleontological sites. The alternative allows the construction of medium and high-density housing north of I-580, which is an area that is considered to be sensitive for prehistoric cultural resources. Impacts to cultural resources would be reduced to a less-than-significant level through implementation of Draft General Plan policies.

(7) Air Quality. Construction activities that would occur under the Redistributed alternative would be required to comply with BAAQMD "Basic Measures" or "Enhanced Measures." Com-

pliance with these measures and implementation of Policy OSC-6.1.P1 would reduce particulate matter (PM₁₀) emissions to a less-than-significant level. Although vehicle use and carbon monoxide (CO) emissions would increase as a result of implementation of the alternative, CO concentrations would be substantially below State and federal CO standards. In addition, buildout of the Redistributed alternative would not result in the development of odor-emitting land uses adjacent to sensitive uses (or the development of sensitive uses adjacent to odor-emitting uses). Implementation of Draft General Plan policies would reduce impacts associated with the use of wood-burning stoves, and the generation of fugitive dust (from construction, agricultural, and quarrying activities) to a less-than-significant level. However, the Redistributed alternative would result in the generation of regional vehicular emissions that would exceed thresholds established by the BAAQMD.

(8) Noise. Compliance with the existing City Noise Ordinance and the implementation of policies associated with the Redistributed alternative would ensure that this alternative would not result in significant noise-related impacts associated with construction activities, stationary sources, or rail operations. Implementation of the Redistributed alternative would increase traffic on roads within the Planning Area; this increase in traffic would result in a noise increase of more than 4 dBA on select roadways in Livermore, a potentially significant noise impact. In addition, implementation of the Redistributed alternative, which would expand the geographic coverage of development in Livermore, would expose residents to noise from aircraft overflights that could exceed the State's 45 dBA CNEL standard for interior noise levels. This impact would also be considered significant. Refer to Appendix F for a list of noise levels along roadway segments that would result from implementation of the Redistributed alternative.

(9) Biological Resources. Sensitive biological resources, including arroyos, creek corridors, vernal pools, and protected plant and animal species, are located within the Planning Area and could be adversely affected by development that would take place as part of the Redistributed alternative. This development would be concentrated in areas on the outskirts of Livermore that are located near sensitive biological resources. Draft General Plan policies under the Redistributed alternative would ensure the avoidance of potential impacts to wildlife movement and corridors. In addition, the Redistributed alternative would not conflict with any approved local, regional, or State policies protecting biological resources and would not adversely effect ecologically-sensitive areas, result in the "take" of protected species, or result in the loss of water of the U.S. or State.

(10) Geology, Soils, and Seismicity. Implementation of the Alquist-Priolo Zoning Act, the Uniform Building Code, and policies associated with the Redistributed alternative would ensure that the alternative would not result in significant impacts related to fault rupture hazards, expansive soils, landslides, and the loss of substantial mineral resources. The Redistributed alternative, like the proposed project, could result in the exposure of people to relatively high seismic hazards. This potential impact exists throughout the seismically-active Bay Area and is not considered a significant unavoidable impact.

(11) Hydrology and Water Quality. New development that would occur under the Redistributed alternative would be required to comply with the storm water regulations and permitting requirements of the National Pollution Discharge Elimination System (NPDES) Nonpoint Source Program, the San Francisco Regional Water Quality Control Board (RWQCB), and the Alameda Countywide Clean Water Program. Compliance with these regulations and permitting requirements would ensure that the Redistributed alternative would not generate stormwater that would have an

adverse effect on water bodies, or create flood hazards that would pose a risk to human health. Implementation of policies associated with the Redistributed alternative would mitigate flood hazard impacts to a less-than-significant level. In addition, policies that are part of the Redistributed alternative would restrict the alteration of waterways, the encroachment of development onto waterways, and the substantial reduction of groundwater quantity or quality. Therefore, implementation of the Redistributed alternative would result in a less-than-significant impact on hydrology and water quality. Similar to the proposed project, the Redistributed alternative would increase the extent of impervious surfaces, adversely affecting the quantity and quality of water in the Livermore Valley Groundwater Basin.

(12) Hazards. Implementation of existing federal, State, and local regulations pertaining to the safe storage, use, transport, disposal, and remediation of hazardous materials, in conjunction with the implementation of policies associated with the Redistributed alternative, would ensure that the following impacts would be reduced to a less-than-significant level: hazards resulting from the routine transport, removal, use, production, upset, and disposal of hazardous materials, including lead and asbestos; hazards resulting from contamination at listed hazardous materials sites; and impacts to emergency response and evacuation plans. Implementation of the Redistributed alternative would not result in significant hazards-associated impacts.

(13) Visual Resources. Policies associated with the Redistributed alternative would: 1) restrict the development of open space and agricultural lands; 2) protect viewsheds along scenic corridors; 3) ensure that development in high-profile areas, such as hillsides and ridgelines, preserves visual integrity; 4) ensure that development is visually-compatible with existing natural vegetation and landscape features; 5) protect historic resources that contribute to the City's visual character; and 6) require new construction to utilize light and glare-reducing mechanisms so that day and nighttime views are preserved. The implementation of these policies would ensure that the Redistributed alternative would not: 1) conflict with existing policies that protect visual resources and community character; 2) result in a substantial adverse effect to visual character or scenic resources, including scenic views and vistas; and 3) result in substantial light and glare. In addition, policies associated with the Redistributed alternative would ensure that a specific plan is prepared for the Greenville BART TOD. Mitigation measures would be incorporated into the specific plan that would ensure the minimization of impacts to visual resources.

3. Balanced Alternative

The following provides a brief description of the Balanced alternative and potential impacts associated with its implementation.

a. Principal Characteristics. The main objective of the Balanced alternative is to balance jobs and housing in Livermore by increasing housing stock wherever possible. As indicated in Table V-6, Livermore Balanced Alternative 2025 Jobs and Housing Units Summary, implementation of the Balanced alternative would result in an increase of 32,582 jobs and 21,409 housing units (compared to an increase of 46,461 jobs and 11,861 housing units as a result of Draft General Plan implementation). Under this alternative, Livermore would have a balance between jobs and housing in 2025, theoretically allowing for self-containment in terms of jobs and housing, and reduced commuting. Under the Balanced alternative, most higher-density housing built in the City would be located within the East Side Area and the Greenville BART TOD.

Table V-6: Livermore Balanced Alternative 2025 Jobs and Housing Units Summary

Location	Land Use Designations	Jobs	Housing
City-wide Development			
	Existing Industrial Space (currently vacant)	4,329	–
	Existing Business Commercial Park Space (currently vacant)	4,882	–
	Committed to be Built Industrial and Business Commercial Park Space ^a	4,801	–
	Committed to be Built Housing Units ^a	–	1,261
	Projected Government-related Job Growth	700	–
	Projected Downtown Specific Plan Development	304	3,259
	Projected Residential Infill Development ^b	–	197
	Projected Additional Development (Outside Change Areas)	2,548	8
City-wide Development Subtotal		17,564	4,725
Change Area Development^c			
Dispersed Commercial/Industrial Sites			
	Nob Hill (Pacific/S. Livermore) Low Density Mixed Use (12-15 units/acre)	168	97
	Rincon (Pine) Medium Density Mixed Use (15-24 units/acre)	157	145
	Geno's Deli (North Vasco) Urban High Residential 4 (18-22 units/acre)	–	160
	Righetti (Vasco/East) Medium Density Mixed Use (15-24 units/acre)	127	117
	Vacant I-580 Commercial Site Service Commercial	252	–
	Adventus Limited Agricultural (High School Overlay, Community Park Overlay)	–	–
	Ferreri Low Intensity Industrial, Limited Agriculture	244	–
Sensitive Habitat Parcels			
	Scenic Avenue Urban Medium High Residential (6 units/acre)	–	126
	Northeast Parcels Urban Low Residential 1 (1.5 units/acre)	–	119
East Side Area			
	E-1 Urban High Residential 5 (22-38 units/acre) (High School Overlay)	–	461
	E-2 Low Intensity Industrial, Urban High Residential 5 (22-38 units/acre)	149	576
	E-3 Urban High Residential 6 (38-55 units/acre) (Limited Services)	430	2,467
	E-4 Urban High Residential 6 (38-55 units/acre) (Limited Services)	372	2,134
	E-5 Urban High Residential 6 (38-55 units/acre) (Limited Services)	427	2,452
Greenville BART Transit-Oriented Development (TOD)			
	North of I-580 High Density Mixed Use (38-55 units/ac), Urban High Residential 4 (18-22 units/acre), Urban High Residential 3 (14-18 units/acre), Urban High Residential 2 (8-14 units/acre)	1,307	4,200
	South of I-580 High Density Mixed Use (38-55 units/acre)	840	1,608
West Side Area			
	W-1 Business Commercial Park, Low Intensity Industrial (Retained)	4,942	–
	W-2 Limited Agriculture (Sports Park Overlay)	–	–
	W-3 Urban High Residential 4 (18-22 units/acre), Limited Agriculture	4,504	1,336
Residential Infill Parcels^d			
	Arroyo Road/Buranis Property Urban Medium Residential (4.5 units/acre)	–	144
	Contractors Way Urban High Residential 4 (18-22 units/acre)	–	179
	Other Vacant Parcels Urban High Residential 2-4 (8-22 units/acre)	–	364
	Southfront Commercial Area Service Commercial	1,098	–
Change Area Development Subtotal		15,018	16,684
TOTAL NEW DEVELOPMENT		32,582	21,409
TOTAL EXISTING DEVELOPMENT		41,500	28,300
GRAND TOTAL 2025 DEVELOPMENT		74,082	49,709

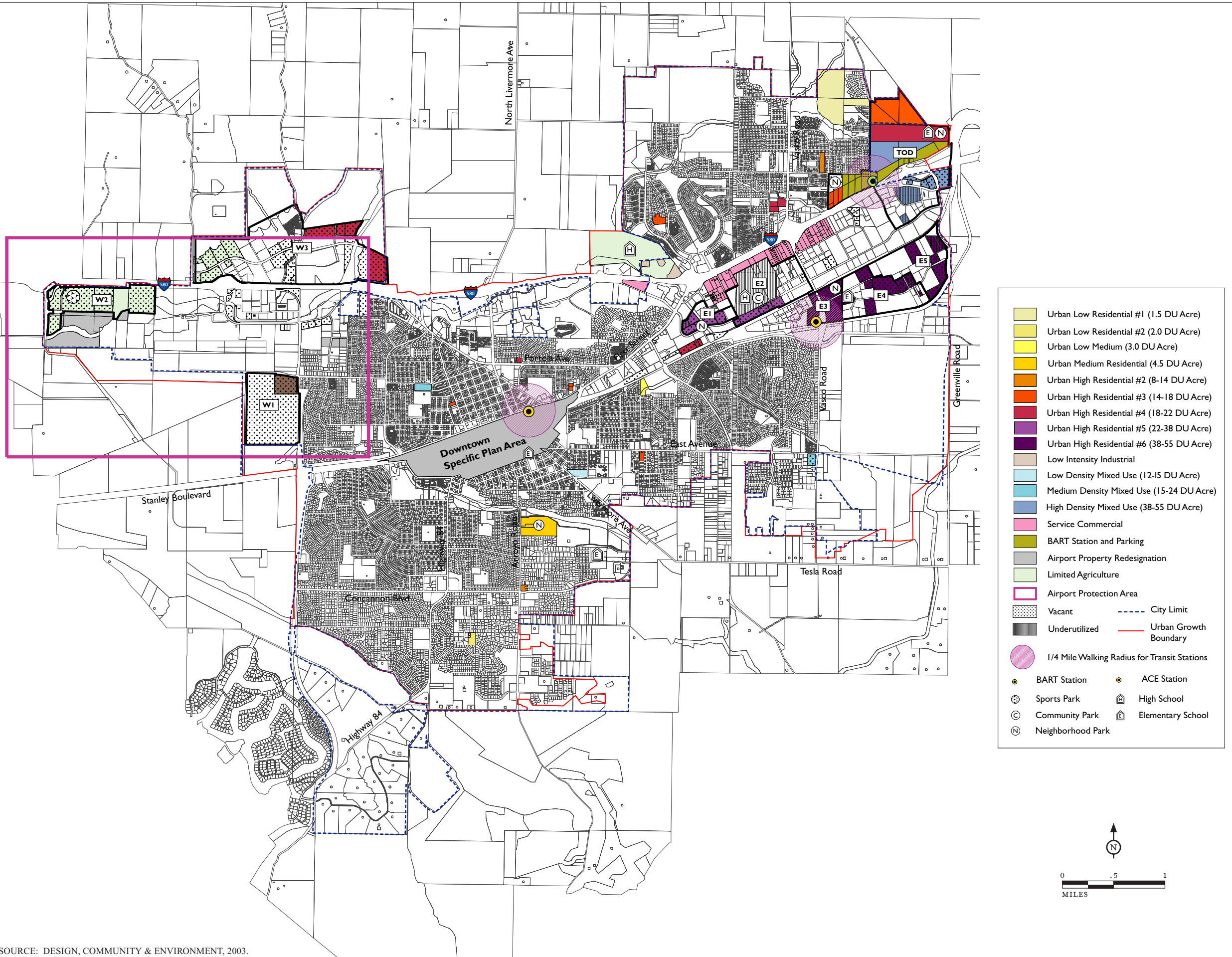
^a “Committed to be built” means that these developments have construction permits and vesting rights to develop.

^b Potential infill development on residential parcels zoned RM: Medium Density Residential District and R2: Duplex District where second units are allowed by right.

^c Change areas are shown on Figure III-1.

^d On all other residential infill parcels, shown on Figure III-1, the existing General Plan designations remain in effect.

Source: Design Community & Environment; LSA Associates, Inc., 2003.



SOURCE: DESIGN, COMMUNITY & ENVIRONMENT, 2003.

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FIGURE V-2

Livermore Draft General Plan and
Downtown Specific Plan EIR
Draft General Plan Alternatives:
Balanced Alternative

The Balanced alternative includes the following land use designations that differ from the land use designations proposed as part of the Draft General Plan. Refer to Figure V-2 for a graphical representation of the Balanced alternative.

- Limited Agriculture designation south of I-580 and east of El Charro Road, and the designation for a sports park;
- Limited Agriculture designation north of I-580 and to the east of Doolan Road;
- Urban High Residential-4 designations (18 to 22 dwelling units per acre) to the north of I-580 and south of Las Positas College;
- Urban High Density Residential-6 designations (38 to 55 dwelling units per acre) in the East Side Area;
- High Density Mixed Use designations (38 to 55 dwelling units per acre) in the Greenville BART TOD.

b. Analysis of Balanced Alternative. The Balanced alternative could result in the following impacts:

(1) Land Use. Implementation of the Balanced alternative would result in the construction of moderate and high-density housing north of I-580, within the East Side Area, and in Downtown. Like the proposed project, the Redistributed alternative would not result in the construction of a physical feature or the removal of major access to portions of Livermore that would divide or isolate existing City districts. Intensified residential development, in and of itself, does not create land use conflicts with surrounding uses.

The Balanced alternative, which concentrates development within the existing Livermore City limits, and limits development on the south side of the City, is consistent with the County General Plan and the South Livermore Specific Plan. Policies limiting the development of Prime Farmland and Williamson Contract Land that would be implemented as part of the Balanced alternative would result in a minimal direct impact on agricultural land, including land designated for agriculture pursuant to the Williamson Act. The Balanced alternative would result in the development of high-density residential uses north of I-580 in the Greenville BART TOD. Because development of existing agricultural land and open space outside the City limits is constrained by the presence of a UGB encircling the City, development under the Balanced alternative would occur only within the UGB. Major infrastructure would not be extended outside of the UGB. Therefore, implementation of the Balanced alternative would not directly or indirectly result in the conversion of farmland to non-agricultural uses.

(2) Population, Employment, and Housing. Implementation of the Balanced alternative would result in the development of approximately 21,409 new housing units and 32,582 jobs. As a result of implementation of this alternative, the population of Livermore would be 127,479 by 2025. Although both the rate of growth and the overall population increase that would occur as a result of the alternative exceed 2025 ABAG population projections, all population growth would occur within the existing Livermore UGB. Refer to Table V-3, Population and Jobs at Buildout, for a comparison of the jobs and population increases that would occur under each alternative. Population increases would be accommodated by the development of new transit facilities capable of moving large numbers of people (e.g., Greenville BART station), and upgrades of existing infrastructure. Future

population growth after buildout of the Balanced alternative would be highly constrained by the availability of infill land within Livermore, and the presence of the strict outward growth boundary demarcated by the UGB. Therefore, the Balanced alternative would not result in substantial, unanticipated population growth.

The Balanced alternative would not include large-scale redevelopment plans that would displace existing housing. Implementation of the alternative would enable Livermore to exceed its “fair share” housing allocation and increase the overall housing supply in the City. The relatively large amount of housing that would be built under the Balanced alternative would dramatically increase the City’s overall housing supply, and would increase the potential for the provision of more affordable housing. The Balanced alternative would result in a balance between jobs and housing (i.e., a jobs/housing ratio of approximately 1.0), representing the potential for self-containment and reduced in and out-commuting. Although the Balanced alternative would alter the population distribution of the City by increasing the residential population on the outskirts of the City, population would also be increased in Downtown Livermore. These population increases would be consistent with the traditional population distribution of Livermore, which is characterized by a dense downtown, surrounded by areas of lower density (containing nodes of higher density).

(3) Traffic and Circulation. The Balanced alternative is expected to generate 15 percent more vehicle trips than the proposed project (72,800 more trips per day than would occur as a result of the proposed project) (see Table V-4). Draft General Plan policies relating to circulation that would be implemented as part of the Balanced alternative would ensure less-than-significant impacts in the areas of transit services, emergency access, parking, pedestrians, bicycle travel and regional transportation policies. The Balanced alternative is expected to result in the operation of 31 intersections at worse than mid-LOS D conditions (11 more intersections than would be effected by the proposed project). The intersections that would operate at Mid-LOS D or worse would be significantly impacted by the Balanced alternative.

(4) Utilities, Infrastructure, and Energy. Development (including job and population growth) associated with implementation of the Balanced alternative exceeds the development that was anticipated by Zone 7 during that agency’s long-range water supply planning process. Therefore, existing water supplies may not be sufficient to serve development that would occur under this alternative. However, residential development that would occur under this alternative is likely to consist of smaller units and less private landscaped area per unit than development that would occur as part of the proposed project or No Project alternative. Medium and high-density residential developments have been shown to have lower per-capita water use than low-density residential projects. Mitigation imposed on new development projects would ensure the provision of adequate water storage facilities. Regular short-term and long-range planning by utility companies, in addition to the implementation of policies that are part of the Balanced alternative, would ensure that necessary utility improvements would be made in order to provide new development with adequate gas, electric, telephone, and cable services. The implementation of waste-reduction policies that are part of the Balanced alternative would ensure that the Vasco Road Sanitary Landfill has sufficient capacity to accommodate waste generated by new development. The Balanced alternative, which contains policies that promote energy efficiency and the conservation of energy, would result in the efficient use of energy. In addition, high-density, transit-oriented development, which would occur as part of this alternative, would itself promote energy efficiency.

The Balanced alternative, which would result in the development of currently undeveloped portions of Livermore (e.g., areas north of I-580), would require the extension of major water, wastewater, and stormwater facilities. Compliance with Draft General Plan policies would reduce potential impacts associated with the extension of utility lines to a less-than-significant level. In addition, the implementation of Draft General Plan policies would ensure that expansions of wastewater treatment facilities would not result in significant environmental impacts.

(5) Public Services. Population and job growth associated with the Balanced alternative would increase demand for park space, and police, fire, and school services. Additional public services, including new schools, parks, and fire fighting and emergency facilities, would be funded through taxes on new development, developer fees, and mitigation fees. Revenue generated from new development would be sufficient to hire additional police and fire protection staff. Compliance with Draft General Plan policies would ensure the maintenance of adequate emergency response times. Urban fire hazard impacts resulting from implementation of the Balanced alternative would be reduced to a less-than-significant level through compliance with existing fire protection regulations, review of projects by the Fire Protection Bureau, and compliance with Draft General Plan policies. Because the Balanced alternative would result in the construction of housing in the vicinity of Livermore City limits, near open space areas, the alternative would increase the exposure of persons to wildland fire hazards. Implementation of Draft General Plan policies that require review of projects in fire hazard areas would reduce impacts from wildland fire hazards to a less-than-significant level. Like the proposed project, implementation of the Balanced alternative would result in insufficient park space in Downtown Livermore.

(6) Cultural Resources. The Balanced alternative would result in the development of areas that could contain undocumented cultural resources, or that currently contain documented cultural resources. These cultural resources include historic structures, and archaeological and paleontological sites. The alternative would result in the development of residential uses within the East and West Side Areas, which are considered sensitive for historical cultural resources. Potential impacts to cultural resources would be reduced to a less-than-significant level through implementation of Draft General Plan policies.

(7) Air Quality. Construction activities that would occur under the Balanced alternative would be required to comply with BAAQMD “Basic Measures” or “Enhanced Measures.” Compliance with these measures and implementation of Policy OSC-6.1.P1 would reduce particulate matter (PM₁₀) emissions to a less-than-significant level. Although vehicle use and carbon monoxide (CO) emissions would increase as a result of implementation of the alternative, CO concentrations would be substantially below State and federal CO standards. In addition, buildout of the Balanced alternative would not result in the development of odor-emitting land uses adjacent to sensitive uses (or the development of sensitive uses adjacent to odor-emitting uses). Implementation of Draft General Plan policies would ensure that the use of wood-burning stoves, and the generation of fugitive dust (from construction, agricultural, and quarrying activities) would not result in significant impacts to air quality. Like the proposed project, the Balanced alternative would result in the generation of regional vehicular emissions that would still exceed thresholds established by the BAAQMD. Out of all the project alternatives, the Balanced alternative would generate the most regional vehicular emissions.

(8) Noise. Compliance with the existing City Noise Ordinance and the implementation of policies associated with the Balanced alternative would ensure that Balanced alternative would not result in significant noise-related impacts associated with construction activities, stationary sources, or rail operations. Implementation of the Balanced alternative would increase traffic on roads within the Planning Area; this increase in traffic would result in a noise increase of more than 4 dBA on select roadways in Livermore, a potentially significant noise impact. Although all three continued development alternatives and the proposed project would result in this significant impact, the Balanced alternative would result in the greatest generation of roadway noise due to corresponding traffic increases. In addition, implementation of the Balanced alternative, which would expand the geographic coverage of development in Livermore, would expose residents to noise from aircraft overflights that could exceed the State's 45 dBA CNEL standard for interior noise levels. This impact would also be considered significant. Refer to Appendix F for a list of noise levels along roadway segments that would result from implementation of the Balanced alternative.

(9) Biological Resources. Sensitive biological resources, including arroyos, creek corridors, vernal pools, and protected plant and animal species, are located within the Planning Area and could be adversely affected by development that would take place as part of the Balanced alternative. Development in areas north of I-580 and in the East Side Area could impact sensitive biological resources, including wetlands, vernal pools, and arroyos. Draft General Plan policies that would be implemented as part of the Balanced alternative would ensure the avoidance of potential impacts to wildlife movement and corridors. In addition, the Balanced alternative would not conflict with any approved local, regional, or State policies protecting biological resources and would not adversely effect ecologically-sensitive areas, result in the "take" of protected species, or result in the loss of water of the U.S. or State.

(10) Geology, Soils, and Seismicity. Implementation of the Alquist-Priolo Zoning Act, the Uniform Building Code, and policies associated with the Balanced alternative would ensure that the alternative does not result in significant impacts related to fault rupture hazards, expansive soils, landslides, and the loss of substantial mineral resources. The Balanced alternative, like the proposed project, could result in the exposure of people to relatively high seismic hazards. This potential impact exists throughout the seismically-active Bay Area and is not considered a significant unavoidable impact.

(11) Hydrology and Water Quality. New development that would occur under the Balanced alternative would be required to comply with the storm water regulations and permitting requirements of the National Pollution Discharge Elimination System (NPDES) Nonpoint Source Program, the San Francisco Regional Water Quality Control Board (RWQCB), and the Alameda Countywide Clean Water Program. Compliance with these regulations and permitting requirements would ensure that the Redistributed alternative would not generate stormwater that would have an adverse effect on water bodies, or create flood hazards that would pose a risk to human health. Although development occurring under the Balanced alternative would be more intense than development occurring under the other alternatives, it is not expected that this intensity would result in more severe or widespread storm water or flood-related impacts. Implementation of policies associated with the Balanced alternative would mitigate flood hazard impacts to a less-than-significant level. In addition, policies that are part of the Balanced alternative would restrict the alteration of waterways, the encroachment of development onto waterways, and the substantial reduction of groundwater quality or quantity.

Therefore, implementation of the Balanced alternative would result in a less-than-significant impact on hydrology and water quality.

(12) Hazards. Implementation of existing federal, State, and local regulations pertaining to the safe storage, use, transport, disposal, and remediation of hazardous materials, in conjunction with the implementation of policies associated with the Balanced alternative, would ensure that the following impacts would be reduced to a less-than-significant level: hazards resulting from the routine transport, removal, use, production, upset, and disposal of hazardous materials, including lead and asbestos; hazards resulting from contamination at listed hazardous materials sites; and impacts to emergency response and evacuation plans.

(13) Visual Resources. Intense residential development does not constitute an adverse visual impact in and of itself. Well-designed medium and high-density residential developments may enhance aesthetics in urbanizing places, even in the context of lower density, commercial, and open space land uses. Policies associated with the Balanced alternative would: 1) restrict the development of open space and agricultural lands; 2) protect viewsheds along scenic corridors; 3) ensure that development in high-profile areas, such as hillsides and ridgelines, preserves visual integrity; 4) ensure that development is visually-compatible with existing natural vegetation and landscape features; 5) protect historic resources that contribute to the City's visual character; and 6) require new construction to utilize light and glare-reducing mechanisms so that day and nighttime views are preserved. The implementation of these policies would ensure that the Balanced alternative would not: 1) conflict with existing policies that protect visual resources and community character; 2) result in a substantial adverse effect to visual character or scenic resources, including scenic views and vistas; and 3) result in substantial light and glare. In addition, policies associated with the Balanced alternative would ensure that a specific plan is prepared for the Greenville BART TOD. Mitigation measures would be incorporated into the specific plan that would ensure the minimization of impacts to visual resources.

C. ENVIRONMENTALLY-SUPERIOR ALTERNATIVE

CEQA requires that an environmentally-superior alternative be identified in the EIR. In general, the five project alternatives (including the Draft General Plan) would result in impacts of a very similar type and scale; the majority of the impacts associated with each alternative differ from one to the next by only a small degree. In addition, each alternative would result in an amalgam of individual impacts within the many topical areas evaluated in Chapter IV. Furthermore, some of these impacts would be experienced at the local level (within the City of Livermore) while others would occur within the greater Tri-Valley or San Francisco Bay Areas.

Most municipalities and regional agencies agree that the greater Bay Area will experience substantial growth over the next 20 years, no matter what growth limits are imposed on individual communities. Where higher density development is not encouraged to infill existing urbanized areas, this inevitable regional development will spread to outlying areas and unincorporated districts. For instance, residential development that is excluded from cities in Contra Costa and Alameda Counties will occur in areas where land is less expensive and the restrictions on development are less stringent, such as San Joaquin or Stanislaus Counties.

Regional agencies, including the BAAQMD, CMA, and ABAG are recognizing that environmentally-sound development occurs within or immediately adjacent to existing urban areas. Residential development in existing urban areas enhances access to and support of public transit, and provides for a better match between jobs and housing. Because demand for housing exceeds supply in the Bay Area, higher density housing in existing urban areas is considered the best way to reduce development pressures on undeveloped areas and to reduce the environmental impacts caused by low density land use patterns, known collectively as “urban sprawl.” In Bay Area cities, the construction of higher density housing allows more people to live closer to jobs. It also reduces traffic and the pressures to develop agricultural land and open space.

The Balanced alternative would allow for the highest residential densities of all the project alternatives and would aim for a better citywide jobs/housing balance. Such a balance offers the potential for self-containment of jobs and housing within Livermore and the next step – the development of jobs with wages that allow workers to afford housing in the community in which they work – would allow the City to capitalize on the jobs/housing balance. The Balanced alternative would reduce the extent to which Livermore would otherwise add to the Tri-Valley’s jobs/housing imbalance and generate longer distance inter-city commuting (with its associated noise levels and air pollution), but it would lead to more focused traffic, noise, and air quality impacts within the City than other project alternatives.

The Balanced alternative would lead to a greater number of City of Livermore intersections with significant adverse level of service impacts. Air quality and noise impacts would be accentuated in those areas where vehicular trips from higher density housing would originate and be destined.

Therefore, while many of the potential regional and long-term effects of the development pattern illustrated in the Balanced alternative are beneficial, quantitative evaluation of the environmental impacts of plan-level development leads to the conclusion that the Draft General Plan is the environmentally superior alternative.

VI. CEQA-REQUIRED ASSESSMENT CONCLUSIONS

As required by CEQA, this chapter discusses: growth-inducing impacts; significant irreversible changes; cumulative impacts; effects found not to be significant; unavoidable significant effects; and the relationship between short-term and long-term uses of the environment. The focus of this chapter is on the Draft General Plan and Downtown Specific Plan for the City of Livermore (proposed project).

A. GROWTH-INDUCING IMPACTS

A project is considered growth-inducing if it would directly or indirectly foster economic or population growth or the construction of additional housing.¹ Examples of projects likely to have significant growth-inducing impacts include extensions or expansions of infrastructure systems beyond what is needed to serve project-specific demand, and development of new residential subdivisions or industrial parks in areas that are currently only sparsely developed or are undeveloped. Because this document is a first-tier (i.e., program-level) EIR on the proposed Draft General Plan and Downtown Specific Plan, which will guide future development within the City of Livermore, it is especially important to assess potential growth-inducing impacts.

Implementation of the proposed project would directly induce population and employment growth in the City by designating land within the City for development that is more intense than current designations allow, and by proposing individual projects (“Catalyst Projects”) that would result in the construction of new housing, cultural, and commercial facilities in Downtown Livermore. Implementation of the Draft General Plan and the Downtown Specific Plan would result in the development of 46,461 additional jobs and 11,861 additional housing units by 2025. In 2025, due to growth associated with the proposed project, Livermore would have a total of 87,960 jobs, 40,161 housing units, and 105,077 residents. These levels of anticipated growth are consistent with the most recent ABAG projections for Livermore. According to ABAG, the Livermore Urban Service Area will have a population of 106,800 by 2025.

The population and employment growth that would occur as a result of the proposed project would occur entirely within Livermore’s urban growth boundary (UGB). Further outward growth would be constrained by development restrictions on lands outside of the UGB, which are designated for agricultural, open space, and resource uses. Because much of the housing and commercial growth that would occur under the Draft General Plan is centered near transit nodes, such as the Greenville BART TOD, anticipated growth would have several beneficial effects. First, such growth would support regional transit systems by increasing ridership and access to transit systems such as BART, and would benefit bike and pedestrian access. Strengthening the transit system and improving bike and pedestrian circulation could reduce traffic and associated environmental effects, such as air pollution and noise. Second, the project would increase the construction of housing in Livermore,

¹ *CEQA Guidelines*, 2000. Section 15126.2(d).

allowing the City to address its fair-share housing allocation requirements. An increased overall housing supply would allow the City to better address affordable housing needs. Lastly, the population density within Livermore would increase, allowing more people to live within the current City boundaries. This in turn would reduce development pressures on lands outside the City's urban limits on unincorporated County lands. Because outward growth in Livermore is highly constrained by the presence of the UGB, growth associated with the proposed project would have beneficial effects on both the local and regional levels. The proposed project would not induce unanticipated population growth outside the UGB.

B. SIGNIFICANT IRREVERSIBLE CHANGES

An EIR must identify any significant irreversible environmental changes that could result from the implementation of a proposed project. These may include current or future uses of non-renewable resources, and secondary or growth-inducing impacts that commit future generations to similar uses. CEQA dictates that irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.² The *CEQA Guidelines* describe three distinct categories of significant irreversible changes: 1) changes in land use which would commit future generations; 2) irreversible changes from environmental actions; and 3) consumption of non-renewable resources.

1. Changes in Land Use Which Would Commit Future Generations

Although much of the Planning Area is developed, implementation of the Draft General Plan would result in the introduction of residential, commercial, industrial, and institutional uses to lands on the outskirts of the City that are currently undeveloped. Major development projects could occur within the Greenville BART TOD, the West Side area, and Downtown. These areas are currently characterized by low-density development and open space. The development of these districts would commit the City to sustaining relatively high-density uses near the vicinity of the UGB, north of I-580 and intensification and redevelopment of uses in Downtown. The intensification of development in these areas would serve several purposes, including: 1) provision of housing; 2) creation of transit-oriented neighborhoods; 3) utilization of underutilized land; and 4) efficient use of existing roadways and infrastructure within Livermore. Development would be limited to lands within the UGB; urban development of open space and agricultural lands outside the UGB would be disallowed. Although the proposed project would commit future generations to more intense development on the outskirts of Livermore and Downtown, these land uses would benefit the City and the region by providing needed housing and transit-oriented development within an existing urban area. Due to development restrictions associated with lands outside of the UGB, the proposed project would not commit future generations to a development pattern that is often described as "urban sprawl."

2. Irreversible Changes from Environmental Actions

Implementation of the proposed project would result in the development of previously-undeveloped land. Associated irreversible environmental changes associated with the modification of existing land uses include: the potential degradation of existing biological and cultural features, loss of aesthetic integrity, and the installation of utility and roadway infrastructure. Although it is unlikely that a major hazardous waste release would occur in Livermore as a result of implementation of the Draft General Plan, such a release would also constitute a significant irreversible change from an

² Ibid.

environmental action. The mitigation measures outlined in Chapter IV, Setting, Impacts, and Mitigation Measures, of this EIR would reduce all such irreversible or nearly irreversible effects to less than significant levels.

3. Consumption of Non-Renewable Resources

Consumption of nonrenewable resources includes conversion of agricultural lands, loss of access to mining reserves, and non-renewable energy use. The implementation of Draft General Plan policies OSC-3.1.P1, OSC-3.1.P2, and OSC-3.1.P5 would ensure that Prime Farmland, Farmland of Statewide Importance, and Unique Farmland is not developed, that agricultural lands are preserved outside the Livermore UGB, and that agricultural land is protected under the agricultural preserve program. Therefore, development that would occur as part of implementation of the proposed project would result in minimal conversion of agricultural land. Policy OSC-4.1.P1 would ensure that the protection of existing mineral resources is taken into account during the consideration of land use proposals. In addition, policies OSC-7.1.P1, OSC-7.1.P2, INF-4.2.P1, and INF-4.2.P3 would promote: the construction of energy-producing wind turbines; development proposals designed to reduce energy consumption; and the utilization of solar power. Development of the Greenville BART TOD, which would de-emphasize private automobile use and encourage transit ridership, would result in the conservation of fossil fuels. Therefore, the proposed project would result in the efficient use of non-renewable energy sources.

C. CUMULATIVE IMPACTS

CEQA defines cumulative impacts as “two or more individual effects, which, when considered together, are considerable, or which can compound or increase other environmental impacts.” Section 15130 of the *CEQA Guidelines* requires that an EIR evaluate potential environmental impacts that are individually limited but cumulatively significant. These impacts can result from the proposed project alone, or together with other projects. The *CEQA Guidelines* state: “The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects.” Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.³

1. Methodology

When evaluating cumulative impacts, CEQA allows the use of either a list of past, present, and probable future projects, including projects outside the control of the lead agency, or a summary of projections in an adopted planning document. This cumulative analysis uses the summary of projections based on information from the traffic analysis in the EIR, including development projections made by the Contra Costa County Transportation Authority (CCCTA). Specific projects that are incorporated into the cumulative analysis in this EIR include the following:

³ *CEQA Guidelines*, 2000. Section 15355.

- **Camino Tassajara Development**, unincorporated Contra Costa County (approximately 1,193 residential units on a 1,000-acre site).
- **Bernal Property Specific Plan**, Pleasanton (Would include approximately 581 residential units, 745,000 square feet of office uses, and 5,000 square feet of commercial uses on a 198-acre private development portion of a 581-acre site. 318 acres of the total 516-acre site would be designated as public land and would include a 30 to 50-acre community park.).
- **Dublin Area Transit Center/Transit Oriented Development (TOD)**, Dublin (Proposed high-intensity mixed-use development in close proximity to BART station and transfer station on approximately 90-acre site. The project would include approximately 2 million square feet of office uses, much of which would be accommodated in high rise buildings; 1,500 multi-family residential units (up to 70 dwelling units per acre); and 70,000 square feet of local-serving retail uses.).
- **Mountain House**, San Joaquin County/Tracy (Proposed planned community on a 4,700-acre site with approximately 15,000 residential units. At buildout (2014-2034), community is planned to house approximately 44,000 people and employ approximately 20,000 people. Approximately 50 percent of the site would contain residential land uses; the remainder of the site would include commercial uses, village and neighborhood shopping centers, and a business and industrial park.).
- **Dougherty Valley**, San Ramon Valley (approximately 11,000 residential units on a 6,000-acre site).
- **East Dublin General Plan Amendment and Specific Plan**, Dublin (approximately 13,000 residential units and 9.7 million square feet of commercial/industrial uses on a 7,000-acre site).

2. Cumulative Effects of the Proposed Draft General Plan

The following analysis examines the cumulative effects of the proposed Draft General Plan. The potential cumulative effects of the proposed Draft General Plan are summarized below for each of the topics analyzed in Chapter IV of the EIR.

a. Land Use. Implementation of the cumulative projects, in combination with the proposed project, would result in extensive land use changes on the regional level. The projects would result in the development of several thousand acres of undeveloped land into residential, commercial, industrial, and institutional uses. Urban growth that would occur in Livermore would be confined by the UGB. In addition, development that would occur as a result of Draft General Plan implementation would include medium and high-density transit-oriented neighborhoods. The development of dense residential and mixed-use districts in close proximity to transit nodes represents an environmentally-sound method for accommodating a growing population and reducing sprawl. The land use impacts that would result from the proposed project would be reduced to less-than-significant levels through implementation of the recommended mitigation measures. Because the proposed project would increase the density of Livermore within the UGB, and would result in the development of transit-oriented development, it would result in a less-than-significant land use impact in the cumulative condition.

b. Population, Employment and Housing. The proposed project would increase the total year 2025 population of Livermore by approximately 28,377. This population increase is consistent with ABAG population projections for 2025 and would not be considered unanticipated growth. The population and employment growth that would result from implementation of the proposed project

would occur within the Livermore UGB and would assist Livermore in meeting its fair share regional housing allocations. The cumulative projects would result in substantial population and employment growth in Alameda, Contra Costa, and San Joaquin Counties. Although this growth would allow for the provision of housing, including affordable housing, associated population increases could result in environmental impacts associated with urban sprawl, such as traffic and air pollution. However, because the population growth that would occur as part of the proposed project is anticipated by ABAG and would be confined to the UGB, the proposed project would not cumulatively result in substantial, unanticipated growth. The proposed project would result in a jobs/housing balance of 1.5, representing the potential for a high rate of in-commuting. However, according to ABAG, jobs and housing will be generally balanced in Alameda County in 2025 (the jobs/housing ratio would be approximately 1.07). Therefore, the proposed project and other anticipated future projects are not anticipated to contribute to future a jobs/housing imbalance. Other cumulative impacts of the proposed project related to population, employment, and housing would be less-than-significant.

c. Traffic and Circulation. Refer to Chapter IV.C, Traffic and Circulation, for a discussion of the cumulative effects of area projects on transportation and circulation systems.

d. Utilities, Infrastructure, and Energy. Implementation of the proposed project and the cumulative projects would increase the demand for water, wastewater treatment, and energy on a regional level. Utility improvements funded by project applicants, routine expansions of wastewater treatment plants and infrastructure, and energy conservation measures would ensure that the proposed project would have less-than-significant cumulative impacts on wastewater treatment and energy. Although the imposition of water conservation measures on new development would result in a less substantial increase in water demand than would occur without such measures, this increase would be significant in terms of the finite supply of water that is available in northern California. Development of the proposed project and cumulative projects would require substantial amounts of water to serve household uses, such as lawn irrigation, pools, showers, and bathrooms. Because the supply of water is limited, this increase in demand would be accommodated through the reallocation of water from other land uses that require water, such as agriculture and fisheries. The reallocation of water from such uses to development in the greater Bay Area would result in indirect environmental effects and would be considered significant.

e. Public Services. Similar to other large development projects, the proposed project and the cumulative projects would increase demand for public services, including police, fire, and emergency service, and schools and parks. New facilities that would be required to maintain adequate service ratios would be funded through developer fees, bond monies, and taxes on new development. It is anticipated that service providers would regularly review growth trends and conduct long-range planning to adequately provide public services for future growth. However, because the amount of regional parkland increases at a relatively low rate, it is anticipated that there would be insufficient regional parkland to accommodate the expected population growth that would result from implementation of the proposed project and the cumulative projects. This parkland shortage could result in the overuse of existing facilities and an associated degradation of park environmental quality. This impact would be considered significant.

f. Cultural Resources. Construction activities associated with the proposed project and the cumulative projects could result in significant impacts to identified and unidentified historical, archaeological and paleontological resources, and unique geologic features. However, like the

proposed project, the cumulative projects would be subject to extensive mitigation measures designed to protect cultural resources. Such mitigation would include the monitoring of construction areas around known archaeological sites, reporting the recovery of any unidentified human remains to the appropriate authorities, and the preservation of protected cultural resources. Therefore, the proposed project would not result in substantial adverse cumulative impacts on cultural resources.

g. Air Quality. The cumulative air quality effects of construction activities and vehicle trips that would occur as a result of implementation of the proposed project and the cumulative projects would be significant. The Tri-Valley area currently experiences substantial air pollution as a result of vehicle trips in western portions of the Bay Area, construction activities, industrial and agricultural activity, and the geophysical characteristics of the air basin. Even with the implementation of mitigation measures, and the development of transit-oriented communities and low-emission technologies, it is anticipated that air quality in the region will worsen due to increased development in the Tri-Valley region, including the proposed and cumulative projects. This impact would be considered significant and could result in substantial adverse human health effects.

h. Noise. The proposed project would result in significant unavoidable increases in noise on area roadways. The anticipated future projects would also result in increased traffic levels and associated noise increases. Therefore, the proposed project would cumulatively contribute to substantial noise level increases along regional roadways. This impact is significant and could result in substantial adverse human health effects. Construction-period activities would be subject to standard noise-reduction measures and would not adversely impact sensitive receptors.

i. Biological Resources. Implementation of the proposed project and cumulative projects would result in the development of large areas of undeveloped land that currently contain sensitive biological resources, including vernal pools, wetlands, and oak woodland. Implementation of Draft General Plan policies OSC-1.1.P1, OSC-1.1.P2, OSC-1.2.P1, OSC-1.2.P4, OSC-1.2.P7, OSC-1.2.P8, and LU-4.1.P2, and Draft General Plan action LU-4.1.P2 would reduce potential impacts of the proposed project on biological resources to less than significant levels. In addition, it is anticipated that the development plans for the cumulative projects would preserve sensitive biological resources, where possible. Impacts to sensitive resources and species would be mitigated according to agreements between project applicants and federal and State regulatory agencies. However, the proposed project and anticipated future projects would cumulatively result in the development of biological resources and the loss of wildlife habitat. Although mitigation for the loss of habitat would occur, most mitigated areas do not fully replicate the complex ecological relationships that existed in the developed habitat. Therefore, implementation of the proposed project would result in a substantial cumulative impact on biological resources.

j. Geology, Soils, and Seismicity. Because geologic conditions are highly localized, implementation of the proposed project would not result in cumulative geologic impacts. The increase in population that would result from implementation of the proposed project and the cumulative projects would increase the number of residents and employees exposed to the region's known seismic hazards. However, conformance with the Uniform Building Code and other measures that would preserve building integrity during a seismic event would reduce this cumulative impact to a less-than-significant level.

k. Hydrology and Water Quality. Compliance with the NPDES Nonpoint Source Program and other RWQCB regulations would ensure that the proposed project and cumulative projects would result in less-than-significant impacts associated with stormwater contamination during project construction and operational periods. The proposed project would not expose persons or structures to substantial adverse flooding hazards, and would not alter waterways. Therefore, the proposed project, in combination with the cumulative projects, would not create region-wide flooding hazards, or substantially alter major waterways. The proposed project and cumulative projects would result in a substantial increase in impervious surface coverage within the Planning Area. The implementation of Draft General Plan policies OSC-2.1.P1 to OSC-2.1.P5 would ensure the proposed project would not deplete the groundwater supply or substantially reduce groundwater quality. Therefore, the proposed project would not result in significant cumulative water quality and hydrology impacts.

l. Hazards. The increase in population resulting from implementation of the proposed project and cumulative projects would result in increased use and storage of hazardous household, commercial, and industrial materials. New development would thus increase the risk that persons could be exposed to accidental upsets of hazardous materials. However, the use, storage, and disposal of hazardous materials is highly regulated by local, State, and federal laws. The handling of hazardous materials in accordance with these regulations would reduce cumulative hazardous materials risks to a less-than-significant level.

m. Visual Resources. Development associated with the proposed project and cumulative projects would result in a substantial change to the visual character of the Tri-Valley area. Implementation of these projects would result in the transformation of several thousand acres of undeveloped land into suburban uses. Much of this undeveloped land is scenic and consists of rolling hillsides and wide expanses of open space and agricultural land. However, Draft General Plan policies would ensure the preservation of viewsheds, the preservation of hillsides and other landmarks, and the protection of visual character in Livermore. Implementation of these policies would ensure that the proposed project would not substantially contribute to the degradation of regional visual quality in the cumulative condition.

D. EFFECTS FOUND NOT TO BE SIGNIFICANT

Each of the CEQA-defined environmental factors is considered within Chapter IV, Setting, Impacts, and Mitigation Measures, of this EIR. No topics suggested for consideration in the CEQA Statute or Guidelines have been “focused out” of detailed analysis.

E. UNAVOIDABLE SIGNIFICANT EFFECTS

Implementation of the proposed project could result in significant unavoidable impacts related to traffic and circulation; air quality; and noise. As discussed in section IV.C., Traffic and Circulation, the proposed project would result in substandard operation levels at: seven intersections in Downtown Livermore; nine intersections at or near I-580; four other intersections in the City; and 15 roadway segment locations. In addition, five roadway and freeway segment locations would operate at standards below those maintained by CMA.

As detailed in section IV.H., Noise, the proposed project would increase traffic noise levels along road segments in Downtown and other portions of Livermore by over 4 dBA, and would expose residential and other land uses to excessive noise. Similarly, the proposed project would result in employment and population growth that would produce emissions exceeding the thresholds established by the BAAQMD.

In addition, as discussed previously in this section, the proposed project would result in significant unavoidable cumulative impacts in the following topical areas: traffic and circulation; utilities, infrastructure and energy; public services; air quality; noise; and biological resources.

F. RELATIONSHIP BETWEEN SHORT-TERM AND LONG-TERM USES OF THE ENVIRONMENT

As outlined in Chapter IV of this EIR, implementation of the proposed project would result in significant impacts related to the following areas:

- Traffic and Circulation
- Public Services
- Air Quality
- Noise

Most of these environmental impacts can be mitigated with the measures outlined in this EIR. The purpose of the Draft General Plan and the Downtown Specific Plan is to guide the development of Livermore in a way that provides for the needs of existing and future residents while preserving and enhancing environmental quality. The Draft General Plan contains goals, objectives, policies, and actions that seek to enable Livermore to grow while preserving the resources that benefit quality of life in the City.

VII. REPORT PREPARATION

A. REPORT PREPARATION

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